VOL. 85 NO. 1

JANUARY • 1959

textile bulletin

What are the chances for a good year in textiles?
(Page 27)

Sectional INDEX

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ABPA NBP

Don't enter into a vast Changeover with half-vast plans

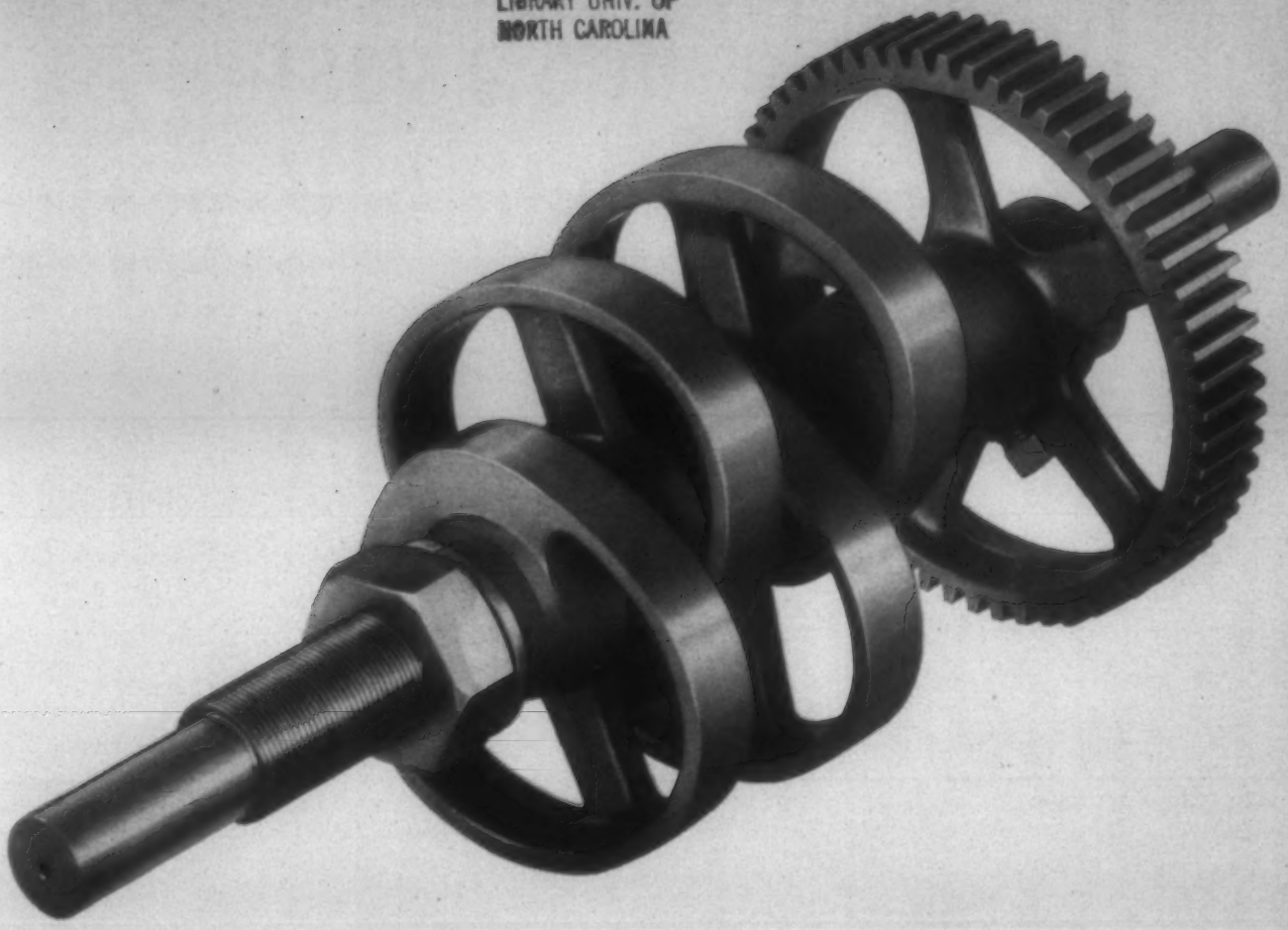
Let us help you with your plans and keep your changeover problems to a minimum . . . experienced Louis P. Batson representatives are near at hand to give you assistance, recommendations and RUSH to you the items needed for partial or complete style changes . . . For a reliable source that delivers both speed and quality, reach and call GREENVILLE CEdar 2-7691.

P. O. Box 772
GREENVILLE, S. C.

LOUIS P. BATSON Company

These are always "on the shelf" ready for immediate delivery:

• ShuR-CusH vibration pads • ShuR-TuFF harness strapping • woven felts • felt cut parts • ShuR-TuFF wirecenter harness cords • hookless harness adjustors • dobby and gem head stirrups, loops, jackeyes • positive adjustment jack sticks and parts • neva wear case hardened jack hooks • turnbuckle harness adjustors and regulators • adhesives and cements • sheaves • static eliminators • hand dryers • • laminated picker sticks, sweep sticks, power adjustors • pickers, check straps, belting • temple rolls, shell rolls, beam barrels • shuttle fur • clear plastic for loom aprons, covers, dividers • leece rods, warp clamps, loom flags • castings—aluminum, brass • mats and matting • • fancies or fancy rolls for cards • jacquard twine and neck cord • set mark preventors for looms • harness connectors—fibre, fabric, leather • bumpers • yarn tinting devices for looms and quillers • ShuR-TuFF lug straps • shuttle and bobbin protectors • time clocks, watchmen clocks • shuttle pegs and bristles • oilless bushings • lug hold ups • take up roll covering • harness and leader wires • "C" hooks and "S" hooks

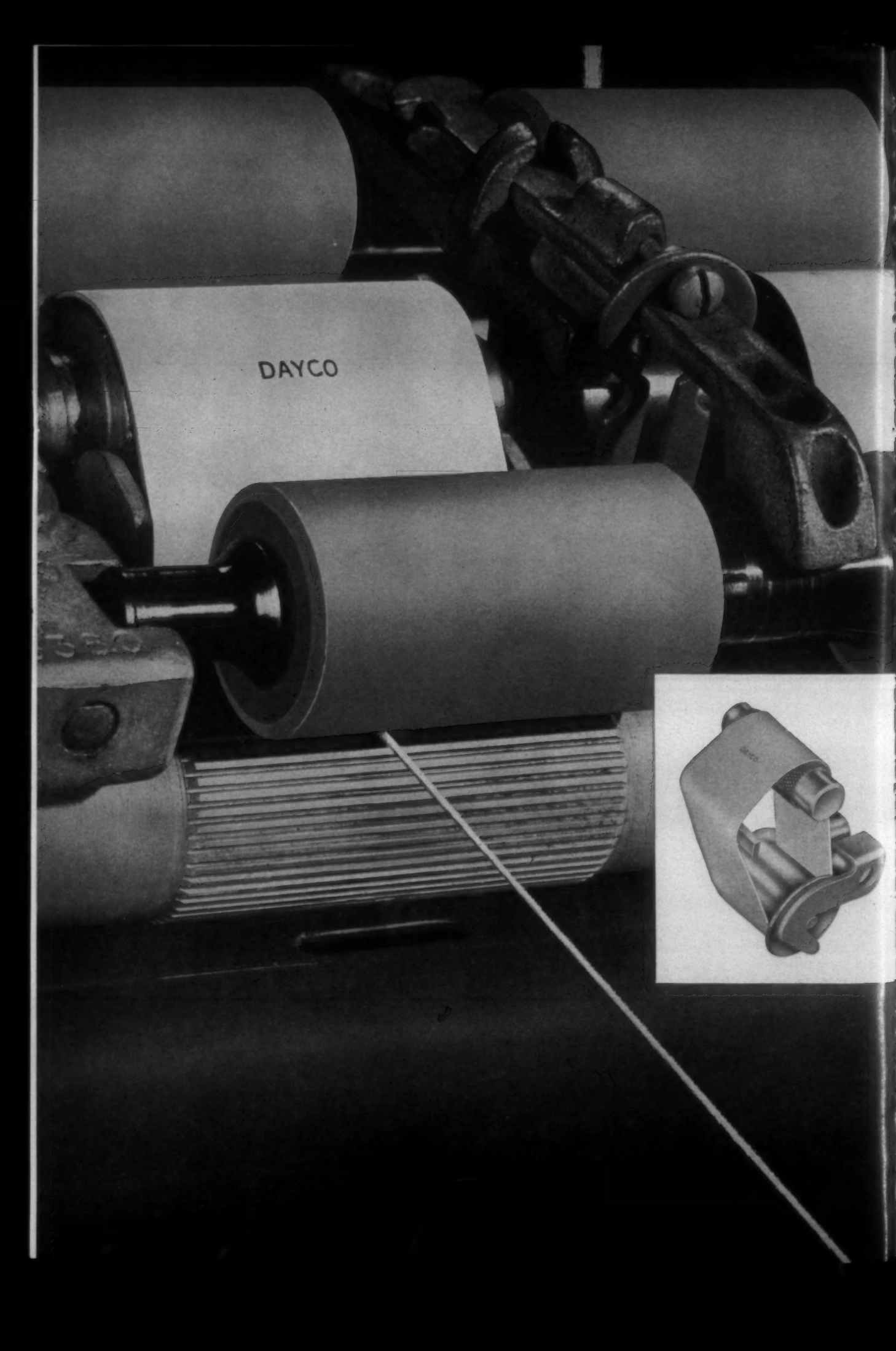


Dependability is built into Draper looms . . . part by part

Regardless of size, shape or location, each part is engineered and manufactured to precise tolerances. As a result, *Draper* has become the accepted name for quality and dependability throughout the textile industry.

DRAPER CORPORATION

HOPEDALE, MASS.
ATLANTA, GA.
GREENSBORO, N.C.
SPARTANBURG, S.C.



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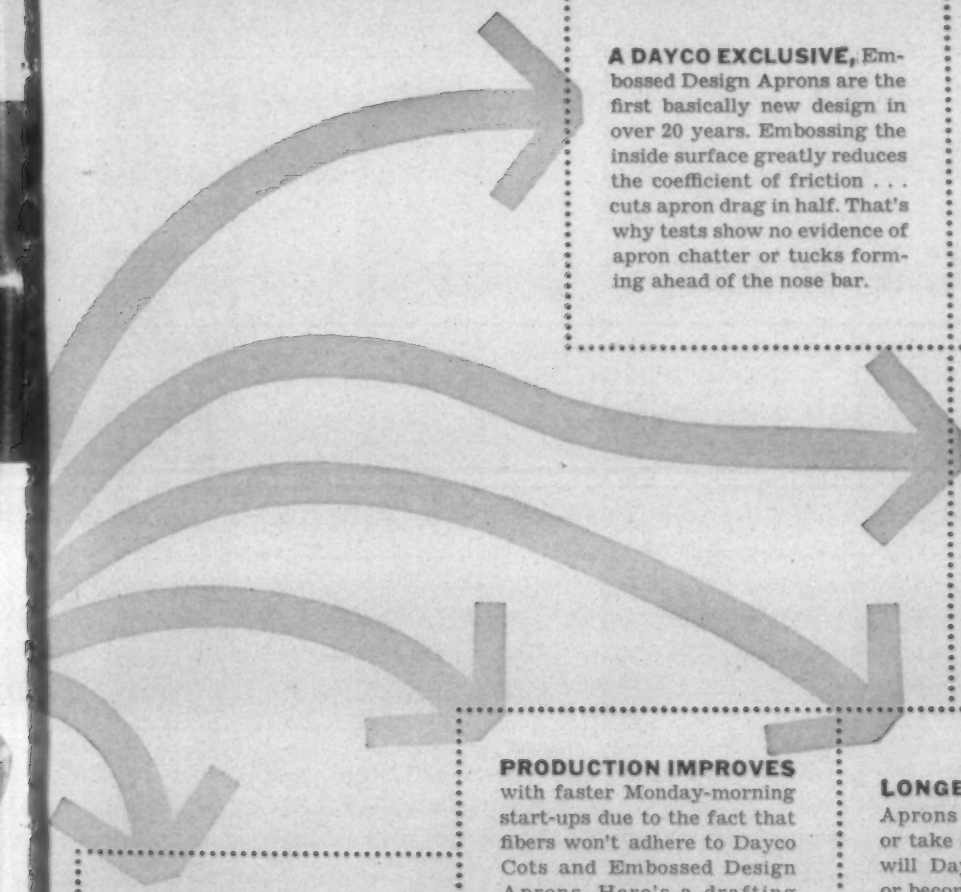
Dayco's Combination of Cots and Embossed Design Aprons

Increases Yarn Quality 10%



A DAYCO EXCLUSIVE, Embossed Design Aprons are the first basically new design in over 20 years. Embossing the inside surface greatly reduces the coefficient of friction . . . cuts apron drag in half. That's why tests show no evidence of apron chatter or tucks forming ahead of the nose bar.

IT COSTS NO MORE to use the most advanced apron on the market, today. Yet you'll improve yarn quality 10% and reduce waste collecting at the nose bar by 50%. That's premium performance at a regular price.

PRODUCTION IMPROVES with faster Monday-morning start-ups due to the fact that fibers won't adhere to Dayco Cots and Embossed Design Aprons. Here's a drafting combination that's unaffected by lubricants or fiber oils and one that stays dry even when temperature and humidity begin to climb!

LONGER LASTING Dayco Aprons won't curl, stretch, or take a permanent set. Nor will Dayco cots pit, groove, or become glazed in the hardest service. This long wearing combination saves you added expense and nuisance of unnecessary replacements.

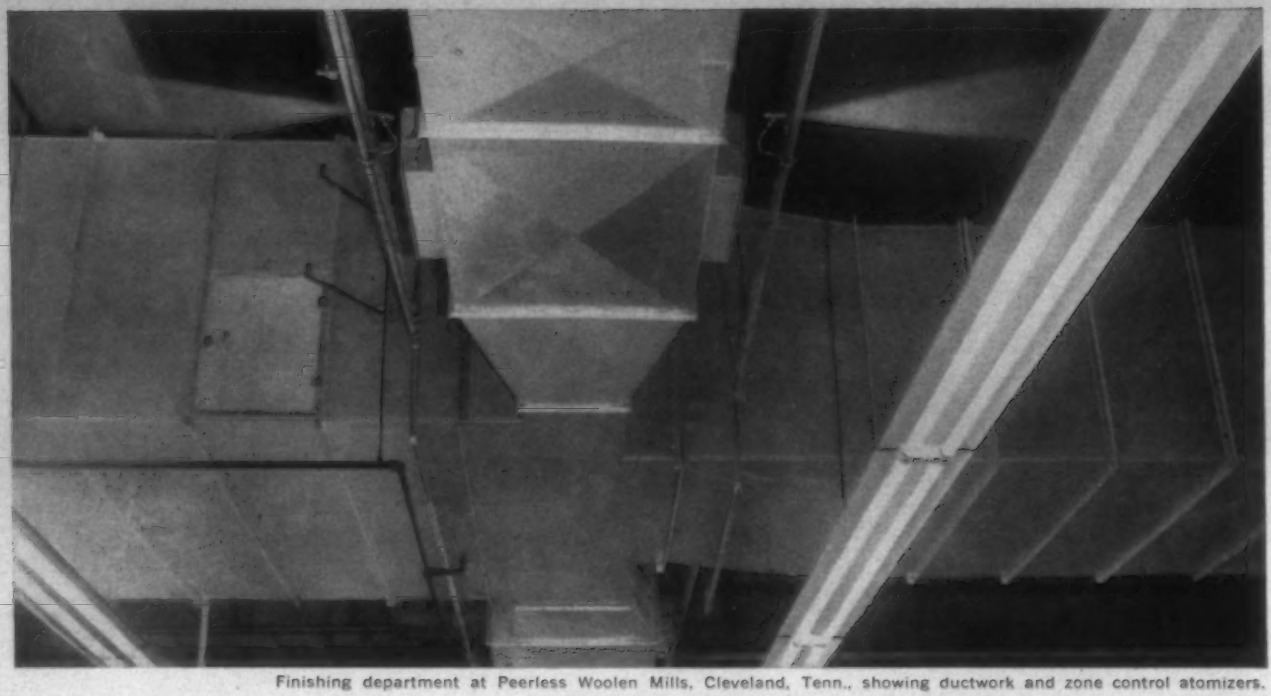
FOR GREATER OUTPUT of fine quality yarn, equip your frames with the fast starting combination of Dayco Cots and Dayco Embossed Designed Aprons.

Order from your Dayco representative the next time he calls or write the Dayton Rubber Company, Textile Division, 401 S. C. National Bank Building, Greenville, South Carolina

Dayton Rubber

Dayco and Thorobred Textile Products For Better Spinning and Weaving

OVERSEAS PLANT: THE DAYTON RUBBER CO., LTD., DUNDEE, SCOTLAND



Finishing department at Peerless Woolen Mills, Cleveland, Tenn., showing ductwork and zone control atomizers.

PEERLESS WOOLEN MILLS

chose Amco Air Conditioning at its Cleveland Tenn. Plant to be

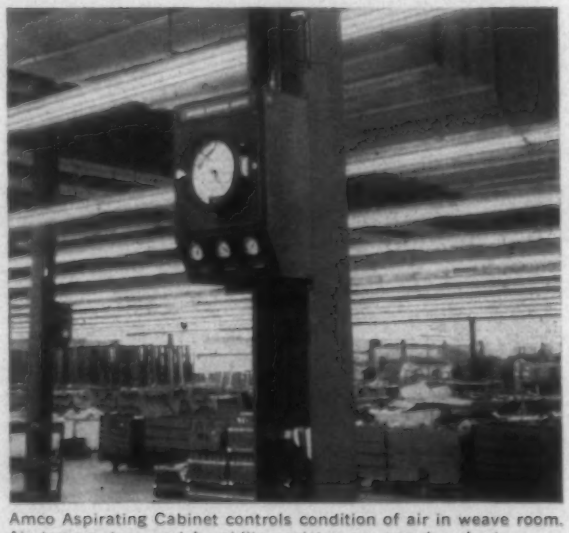
INDEPENDENT OF OUTSIDE WEATHER

An Amco dual (split) system has given Peerless Woolen Mills exactly what was wanted... tailor-made *inside air* regardless of *outside weather!*

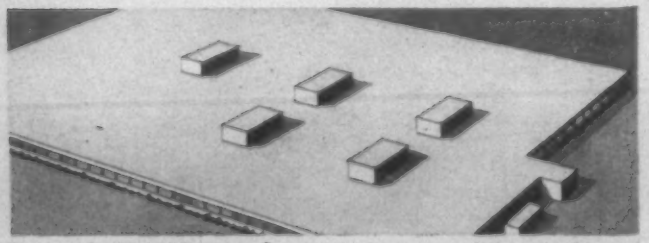
Amco Central Station Air Conditioning, augmented by room atomizers, permits each of the different manufacturing areas in this 10-acre building to be controlled separately.

Peerless spared nothing to assure this *profitable precision control* of temperature and humidity. Over 1000 tons of refrigeration capacity and 3 miles of ductwork were provided. Five of industry's largest commercial fans were installed.

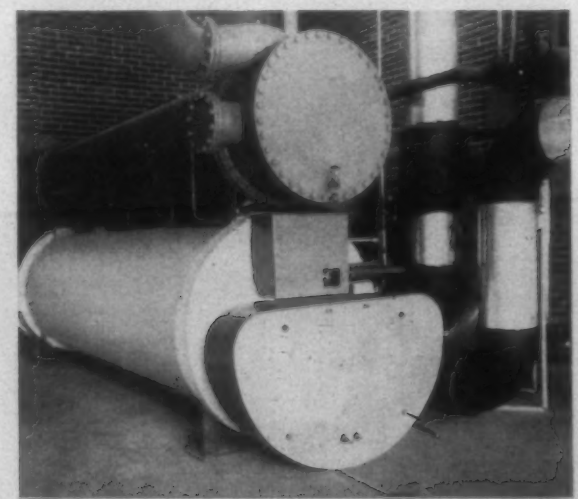
If you have a textile mill conditioning problem, ask an Amco engineer to call. There's no obligation.



Amco Aspirating Cabinet controls condition of air in weave room. Air temperature and humidity register on recorder chart.



On top of mill building are 5 apparatus rooms, each housing fan, air washer, filter, and chilled water tank.



1000-ton capacity refrigeration machine is used for temperature control the year-round. Condenser is at top; chiller at bottom.

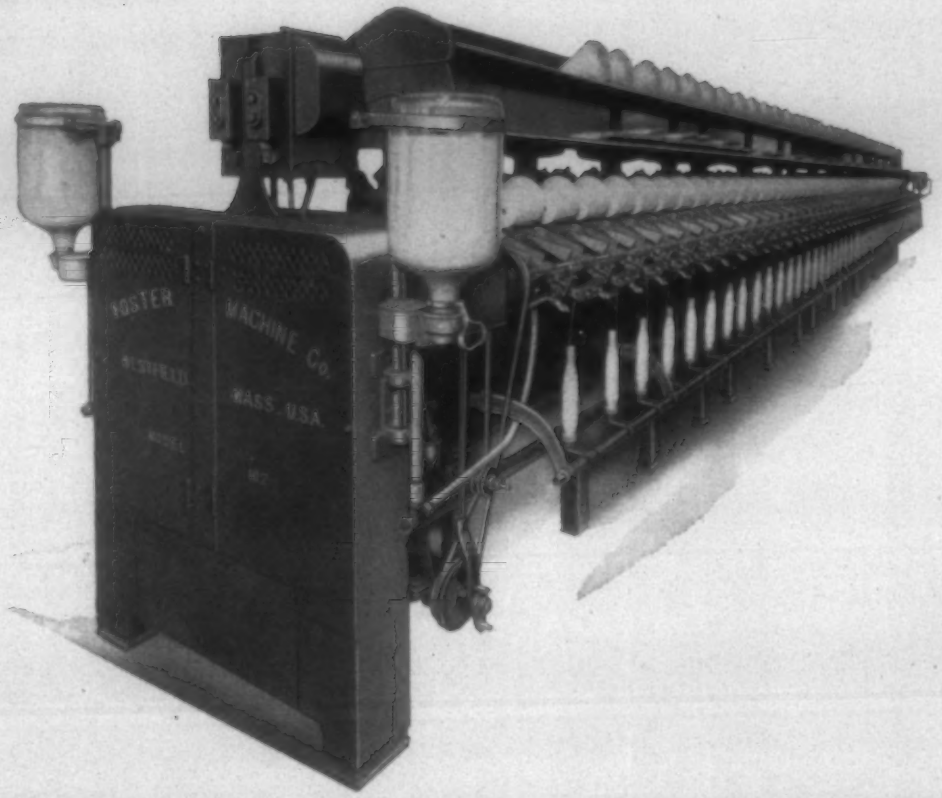
AMERICAN MOISTENING COMPANY

Makers of Air Conditioning Systems and Textile Mill Equipment Since 1888

Home office and plant: Cleveland, N.C. Branches in Atlanta, Providence, Toronto.

FOSTER MODEL 102

Flexibility - Economy - Quality Winding



What "Flexibility" Means To YOU

The Foster Model 102 Winder is a *safe* investment, because it is adaptable to changing requirements. And changing requirements are the order of the day. This machine is suitable for any twist or count of yarn (except the very coarsest) and for any type of spun fibre — natural, synthetic or texturized. It can be equipped to wind traverses from 2¼" to 6", and to wind knitting cones, warper cones, parallel tubes, or dye packages; or can be built to wind 7" traverse. It will wind any cone taper commonly used and will wind at nine different angles from 9° to 18°. It may be equipped with yarn conditioning attachment, will efficiently handle damp yarn and soft twist yarns requiring little or no tension. Spindles can be readily added to existing machines.

The Economy and Quality features of the Model 102 are equally important, but space does not permit us to enumerate them here. Write for full details.

FOSTER MACHINE COMPANY

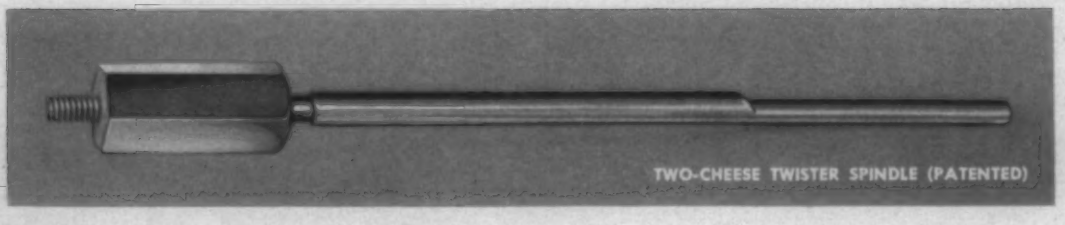
A Yarn Winder for Every Purpose

Westfield, Massachusetts, U.S.A.

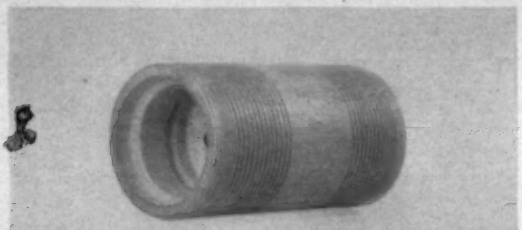
Southern Office — Johnston Bldg., Charlotte, N. C.
Canadian Representative — Ross Whitehead & Company Ltd., 1475 Mountain St., Montreal, Que. and 100 Dixie Plaza, Port Credit, Ont.
European Representative — Muschamp Textile Machinery Ltd., Keb Lane, Bardsley, Oldham, England

834-B

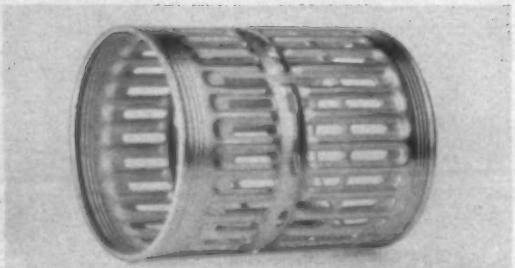
BARBER-COLMAN ACCESSORIES



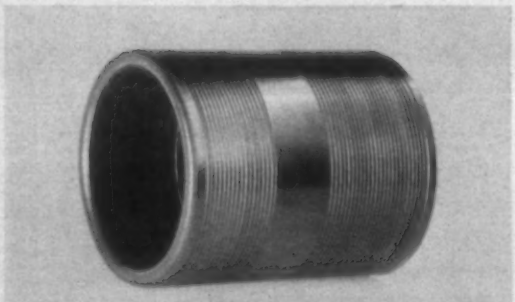
TWO-CHEESE TWISTER SPINDLE (PATENTED)



WOOD CHEESE CORE



STAINLESS STEEL DYE SLEEVE



BAKELITE CHEESE CORE SLEEVE

USE THESE BARBER-COLMAN PRODUCTS FOR BEST RESULTS

The accessories shown here are carefully designed and developed by Barber-Colman Company for use on Barber-Colman machines. • The Twister Spindle, used with wood Cheese Cores, is a new idea that makes for better twisting. The offset on the end of the spindle retains the outer cheese and lets it run free of the inner one. Thus, by mounting two cheeses per spindle, the height of the twister creel is reduced. • The stainless steel Dye Sleeves fit the same holders on the Automatic Spooler as the regular plastic Cheese Sleeves and were designed and developed exclusively for this Barber-Colman machine. • Since all of these parts are made of best materials to very close limits, they not only are accurate, uniform, and durable, but also insure *top performance* of your machines.

BARBER-COLMAN SERVICE WILL KEEP YOUR MACHINES AT THE PEAK OF PRODUCTION

For many years Barber-Colman Company has maintained a high-grade Service Department, and made its facilities available to all owners of Barber-Colman equipment at reasonable cost. The men who staff this Department are all experienced hands, trained to handle the special problems of Barber-Colman equipment. They are backed by the knowledge and experience of the entire Barber-Colman organization. You can employ this Service in any manner you wish — on a regular contract basis, for specific problems, or in any emergency. *See your Barber-Colman representative for details.*

AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • WARP DRAWING MACHINES

BARBER-COLMAN COMPANY

ROCKFORD • ILLINOIS • U. S. A.

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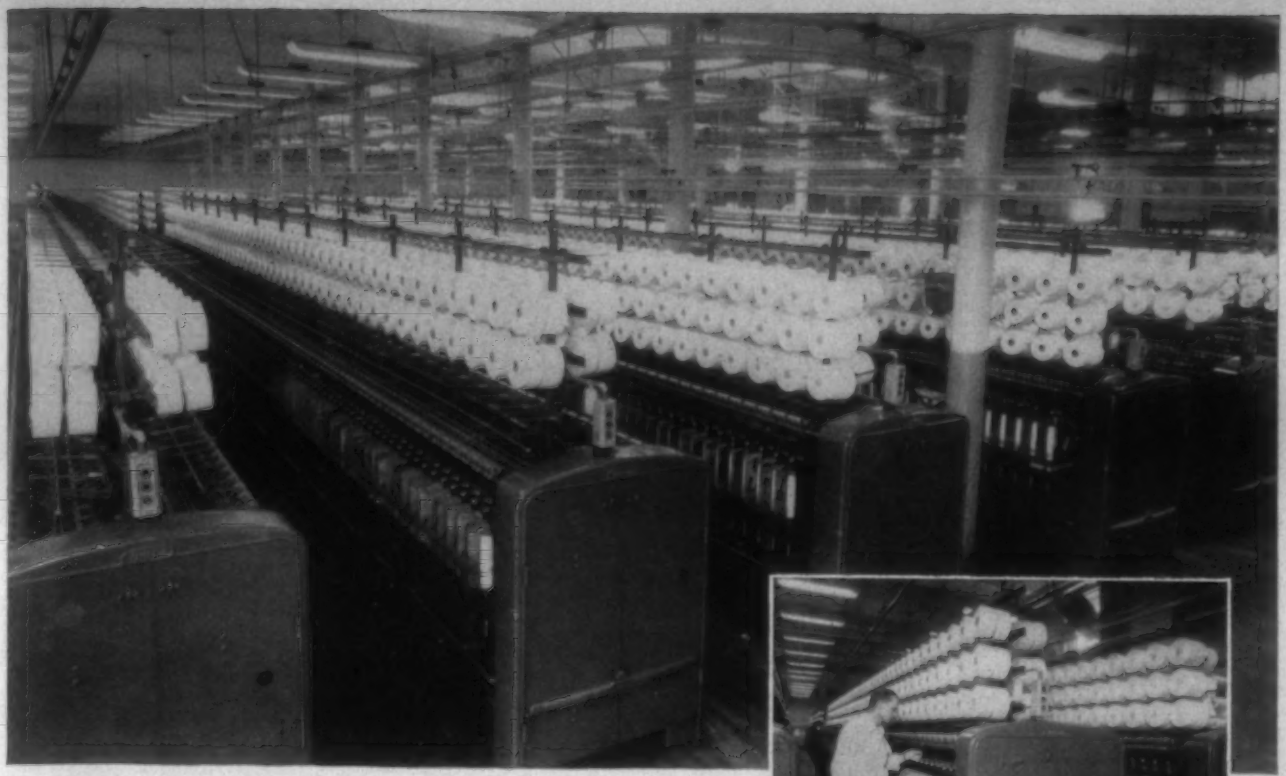
INDIA	MEXICO	BRAZIL	JAPAN	PAKISTAN	PAKISTAN
Batliboi & Company Forbes Street, Fort Bombay, India	J. Rabasa Isabel la Catolica 45-913 Apartado 7348 Mexico D.F., Mexico	Industria e Comercio de Maquinas S. A. "COMASA" R. Glicerio, 537/547 Sao Paulo, Brazil	Do-Yei Shoji Kabushiki Kaisha Atlas Building (7th Floor) 11, Bingo-Machi, 3-Chome, Higashi-Ku Osaka, Japan	Associated Agencies (M'cr.) Ltd. Piccadilly House 11 Piccadilly Manchester 1, England	Associated Agencies (M'cr) Ltd. 730, Muhammadi House, McLeod Road Karachi 2, Pakistan



Rx for *longer* TWISTER Life and *greater* Profits....

Install... WHITIN *Pacemakers!*

Whitin Pacemaker* Twisters lead all others by making greater profits for their users over a far longer period of time. This outstanding Whitin Twister for cotton and spun synthetics is setting records for production, uniformity of twist and lowest operating and maintenance costs. Advanced in design and sturdily built, the machine is designed mechanically to run at speeds far beyond fiber and traveler speed limitations. The following features are available:

- **Minimum angulation of yarn path — delivery roll position relative to balloon guide permits nearly vertical path of yarn in twisting zone.**
- **Gear train in head end mounted on antifriction bearings.**
- **Laminated Bakelite gears inter-meshed with metallic gears in head end reduce noise level.**
- **Delivery roll mounted on grease-packed ball bearings.**
- **Nylon insert bearings for top roll gudgeons.**
- **Steel pulleys and through shafts mounted on antifriction bearings reduce maintenance costs.**
- **Antifriction tape tension pulleys.**
- **Stationary support rods for ring rails mounted back of spindle rail to reduce yarn contamination.**
- **Stationary separators mounted on spindle rails extending through slotted ring rails reduce possibility of end breakage at adjoining spindle positions.**
- **Hexagonal steel cross shafts mounted on ball bearings — Broached holes in lifting arms and spring counterweighted ring rails assure maintenance of yarn wind accuracy on bobbins.**

*Trade Mark

For complete information, ask your Whitin representative — or write direct to us.

Whitin MACHINE WORKS

WHITINSVILLE, MASSACHUSETTS

CHARLOTTE, N. C. • GREENSBORO, N. C. • ATLANTA, GA. • SPARTANBURG, S. C. • DEXTER, ME.

FAMOUS TEXTILE MILL* PRAISES

NEW AUTOMATIC STOP AND GO CONTROL

Spinner illustrates the ease of Stop and Go Control on Bahnson Cross-Jet Cleaner.

EXCLUSIVE WITH THE

Bahnson CROSS-JET CLEANER

Officials at this top textile mill report,*

"Cross-Jet's exclusive Stop and Go control permits total cleaning without costly production interruptions. Cross-Jet comes to a standstill automatically with a slight pressure against the flexible trunk. It can be stopped by a doffing cart standing in the aisle. It will not push the cart nor will its flexible trunk flop over into the frame endangering yarn spinning. A spinner can continue her task at the frame with safety and efficiency. Our production costs have been reduced . . . our yarn quality has been greatly improved since we installed the Cross-Jet Cleaner."

HELPFUL ANALYSIS WITHOUT OBLIGATION

Let a Bahnson representative analyze your cleaning problems and make recommendations for your needs. Write Bahnson today!

**Name of mill upon request*

AUTOMATIC FLOOR SWEEPING AND LINT REMOVAL BY VACUUM
can be added to the Cross-Jet without an additional traveling cleaner.

Bahnson AIR-O-MATION
Air at Work for Increased Profits

THE BAHNSON COMPANY—WINSTON-SALEM, N. C., U. S. A.

Indanthrene®

the widest color range in vat dyes

FROM RESEARCH TO REALITY

gdc gaf

GENERAL DYESTUFF COMPANY

A SALES DIVISION OF

GENERAL ANILINE & FILM CORPORATION

435 HUDSON STREET · NEW YORK 14, NEW YORK

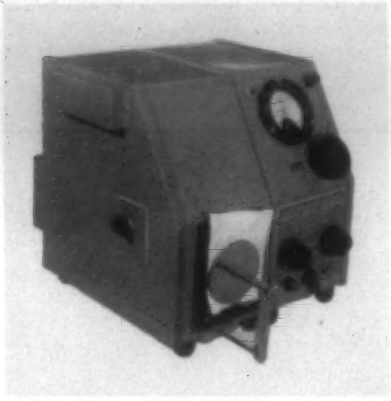
CHARLOTTE · CHATTANOOGA · CHICAGO · LOS ANGELES · NEW YORK · PHILADELPHIA · PORTLAND, ORE. PROVIDENCE · SAN FRANCISCO · IN CANADA: CHEMICAL DEVELOPMENTS OF CANADA, LTD., MONTREAL

MEMBER VAT DYE INSTITUTE · INDANTHRENE VAT DYES MANUFACTURED BY THE GENERAL ANILINE & FILM CORPORATION ARE SOLD OUTSIDE THE UNITED STATES UNDER THE TRADEMARK TENANTHREN

For The Textile Industry's Use

– NEW MACHINERY, EQUIPMENT AND SUPPLIES –

Reflectometer, Color Meter



Hunter Associates Laboratory is introducing this new whiteness reflectometer for the measurement of progress in bleaching both by chemical and optical bleaches.

Hunter Associates Laboratory, 5421 Brier Ridge Road, McLean, Va., has developed a reflectometer, which it claims is the only instrument available to separate and measure the contribution to whiteness of optical bleaches. It can be equipped with an ultraviolet absorbing filter which may be alternated between the incident and viewing light beams to measure directly the contribution of the widely used fluorescent brighteners to specimen whiteness. It can also be used to measure the progress of bleaching by regular chemical bleaches. The unit uses paired vacuum tubes in a null Wheatstone bridge circuit. It employs 45° 0° geometry and has green and blue tristimulus filters, each with a separate pair of phototubes. The instrument is also expected to prove useful in evaluating the color quality of textile fibers, especially cotton and wool. It may double as a "poor man's colorimeter," the company reports.

Also introduced by the firm is a color and color-difference meter. This instrument is expected to find use in shading applications where there is need to measure a color difference or to group bolts of dyed cloth into lots of identical color.

(Request Item No. A-1)

Vat Navy Dye

Calcoloid Navy Blue 2GC Double Paste, a vat navy dye that remains stable at dyeing temperatures as high as 250° F., has been developed by the dyes department of American Cyanamid Co., 30 Rockefeller Plaza, New York 20, N. Y.

The new dye is a free-flowing, non-settling, non-specking, non-drying paste type that has controlled particle size and fine application properties. Said to be an exceptionally versatile dye with superior all-around fastness, Calcoloid Navy Blue 2GC produces navy shades with a greenish cast and works readily on all types of piece goods dyeing equipment.

Of the various navy vat dyes tested in Cyanamid's laboratory, Calcoloid Navy Blue 2GC is the only one that did not color a dry cleaning bath pink. A 0.3% available chlorine solution does not change its tone. Even in pale shades, its fastness to light is said to be very good.

Because of its unequaled leuco stability at high temperatures, it is said to be suitable for dyeing stock, packages, cheeses and beams at temperatures above 140° F. Under dyeing conditions on the Williams unit range, it does not become redder and duller. According to the company, fabrics dyed with this navy vat dye meet government specifications.

(Request Item No. A-2)

Portable Elevating Trucks

A new swivel fifth-wheel and steering attachment is available on Safeway portable elevating trucks manufactured by The American Pulley Co., 4200 Wissahickon Avenue, Philadelphia 29, Pa. The dual-wheel and handle construction has been tested and proven successful on other American materials handling equipment, the company reports. The new design replaces casters and provides a short turn radius.

The load is carried on a hardened fifth wheel which makes turning easy. The large diameter wheels also make the loaded truck easier to move. Steering is simplified in both forward and backward moving, by the hinged handle which, when not in use, is held in a vertical position—keeping it out of the way. (Request Item No. A-3)

Flame Retardants

Three flame retardant chemicals have been developed by Laurel Soap Mfg. Co., Tioga, Thompson & Almond Streets, Philadelphia 34, Pa., for use on drapery, upholstery, and certain garment fabrics. One organic and two inorganic, all are manufactured as water-clear liquid products readily soluble in water.

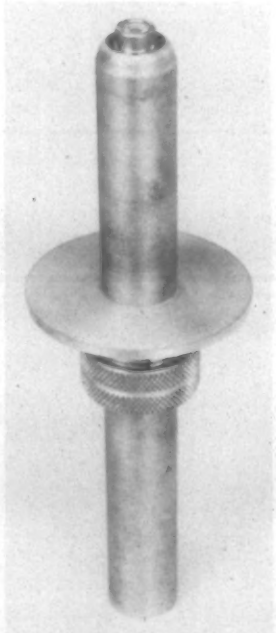
Laurel flame retardants are recommended for use on cotton and rayon fabrics, and are applied by any suitable immersing method where controlled pick-up is obtainable—such as pad, jig, etc. Non-permanent compounds (resistant to removal by dry-cleaning, but not to laundering), they are not suitable for outdoor use subject to the bleaching effect of rain.

Laurel Pyrosan A, the organic flame retardant, is said to eliminate after-flaming at one and after-glowing within one or two seconds after removal of the fire source. At the same time, Laurel reports, it imparts a soft, pleasing hand to fabrics, won't cause efflorescense in normal fabric storage and won't effect most dyestuffs. Laurel Pyrosan B, inorganic, also gives a soft, pleasing hand—being especially useful on pile fabrics. It will not crystallize nor settle in storage, the company reports.

Laurel Flame Retardant 527C, also inorganic, is low in cost, non-corrosive to equipment, and of high activity. It is claimed that even low percentages of it used to treat lightly napped goods enable them to pass Federal tests. Samples and recommendations for use are available.

(Request Item No. A-4)

Spindle Plumbing Device

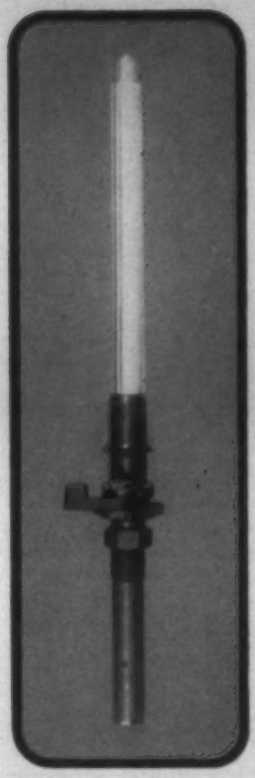


Spinning spindle plumbing device.

Williams Machine & Tool Co., 220 N. Brevard St., Charlotte, N. C., has been granted a patent on its spindle plumbing device which is used for plumbing any ball bearing spindle. Advantages of the device are reported by the company to be: (1) simple to use; (2) spindle can be plumbed while the spinning frame is standing; (3) labor savings are allowed by faster plumbing; and (4) more accurate spindle plumbing is possible. For spinning spindle plumbing the device consists of an adapter with a balance level set in the top and an adjustable plug for setting the spindle to the ring. For throwing spindles, of course, the adjustable plug is not necessary.

Spinning spindle plumbing is done with the device by setting the adapter on the spindle and packing the base until the bead in the balance level is in the center

ROBERTS *SUPREME* SPINDLES



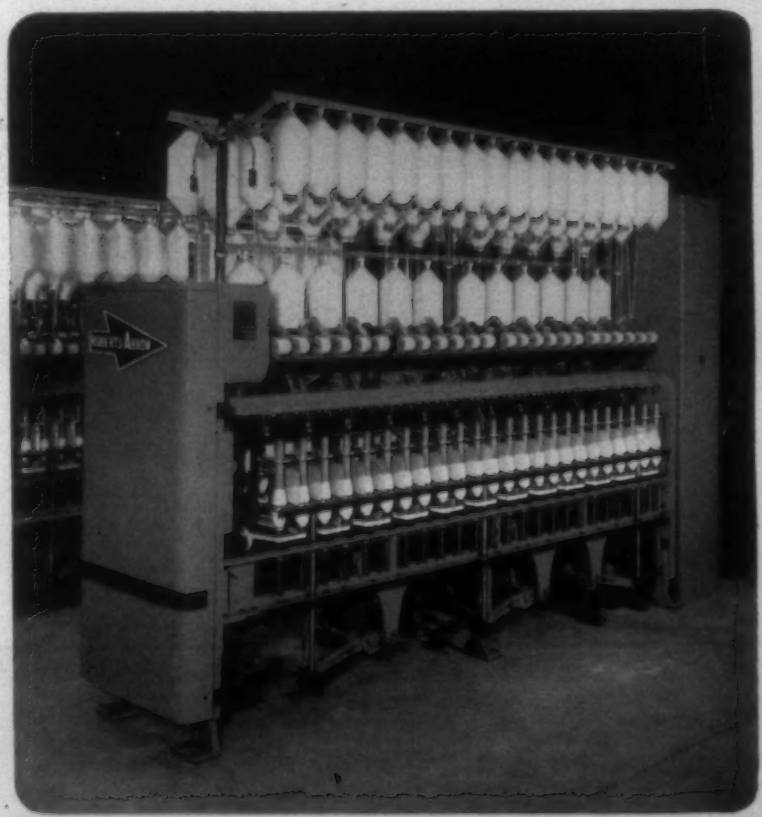
- Two Extra-Wide Grease-Packed Ball Bearings
- Widely Spaced at Base Top and Bottom
- No Lubrication Ever Required
- Speeds up to 15,000 R.P.M.
- Unique Design for Top Drive Filling
- For Warp up to 12¼-inch Tubes and 1¼ lbs.
- Simple Finger-Tip Cam-Brake Optional

Supreme Spindles are manufactured to super-precision tolerances and are unconditionally guaranteed. Ball bearings and boots are guaranteed in normal use for five years.

A FEATURE OF

ROBERTS ARROW

ALSO AVAILABLE AS CHANGE-OVER MODERNIZATION ON ANY MAKE OF FRAME



Very Advanced

ARROW SPINNING features:

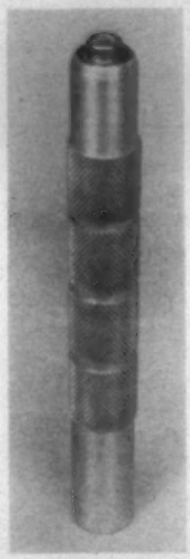
- PosiWate Top Roll Suspension
- UnaRing Balloon Control
- EvenGrip Fluted Bottom Rolls
- Roberts Supreme Ball Bearing Spindles
- Double-Apron High Draft System
- UnitVac Power-Suction Cleaning
- Roberts All-Ball-Bearing Head
- Unitized Sectional Frame
- AeroCreel with Latch-Type Bobbin Holders
- Flexibility For Cotton And Synthetics

ROBERTS COMPANY

SANFORD, NORTH CAROLINA

FOR THE TEXTILE INDUSTRY'S USE—

of the level. The spindle is then plumb. The adjustable plug is then slipped onto the adapter and set to the ring. The company recommends that the adjustable plug be in the middle of the adapter rather than close to the top or bottom when setting to the ring. The adjustable plug's position with relation to the ring can be checked at the top and bottom after setting.



Throwing spindle plumbing device.

In setting throwing spindles the adapter is placed on the spindle and the spindle base is adjusted until the bead is in the center of the level. The spindle setting is completed by locking it in place. Advantages of using the device on throwing spindles are found from the facts that only one level is needed and the setting time is reduced. The company reports that one hour in eight of spindle plumbing time can be saved using the device.

The device can be used to determine if a spindle is crooked by placing it on a spindle and turning it. If the bead stays in the center of the circle the spindle is straight. If the bead wanders outside the circle the spindle is bent or crooked.

(Request Item No. A-5)

Vat Gray

A new vat gray dye that is said to produce a neutral shade of gray in cottons and viscose rayons is now available from American Cyanamid Co., 30 Rockefeller Plaza, New York 20, N. Y. Reportedly the only color of its type on the market, Calcoloid Gray 2BC Double Paste, combines high fastness and good level dyeing properties with excellent working properties in all stages of manufacture and in all equipment.

Calcoloid Gray 2BC is designed to meet the increasing market demand for a more neutral shade of gray than that available with the company's older Calcoloid Gray 2GC Double Paste. This new patented Cyanamid specialty is a member of the anthraquinone class of vat dyes.

A free-flowing paste type, Calcoloid Gray 2BC has a fine, controlled particle size that insures rapid reduction and fixation. It is reported to be non-setting, non-specking and non-drying. Ratings on pigment and leuco filtration tests are excellent.

Calcoloid Gray 2BC has resistance to migration during drying and is designed to meet the special needs of pigment pad processes, pad-jig, pad-stream or pad-Williams units. It is also suitable for stock, package, cheese and beam dyeing. Because of its excellent fastness properties, it withstands rigorous mill processing and destructive influences encountered in consumer use.

End uses for the new dye include automotive fabrics, awnings and lawn furniture, decorator fabrics, clothing, hosiery, towels, thread, tufting and knitting yarns. It is also reported to be applicable to fabrics that must meet government specifications. (Request Item No. A-6)

Water Pressure Atomizer

The addition of The Amco Aero-Miser, patented water-pressure-type atomizer, makes it possible for American Moistening Co. of Cleveland, N. C., to supply its customers with either suction or water pressure atomizers for use in straight humidification, evaporative cooling or split systems with central station air conditioning.

The Amco Aero-Miser atomizes the water internally, with a minimum requirement of compressed air, delivering an easily vaporized mist of fine quality. The Amco Aero-Miser is constructed using brass for the body, hard bronze for the water nozzle, stainless steel for the cleaning wire and neoprene coated nylon fabric for the control diaphragm. At each control operation the cleaning wire cleans the water jet. The Amco Aero-Miser is available from stock in standard capacities from 6 to 15 lbs. of water per hour.

(Request Item No. A-7)

Plastic Pickers

The Southern Shuttles Division of Steel Heddle Mfg. Co., Paris Station, Greenville, S. C., announces the addition of the Durapic plaster picker to its line. The new picker is described as a long-chain, high molecular weight polyethylene picker with an amazingly long life. Trial basis, small quantity orders are now being accepted.

(Request Item No. A-8)

Laminated Carpet Backing

A new laminated backing for tufted carpets has been introduced by Deltox Rug Co., Oshkosh, Wisc., a subsidiary of Armstrong Cork Co. Called Stabiloc Scrim, the new material was developed to meet the demand for laminated backing for tufted broadloom carpets.

Stabiloc Scrim will be sold direct to tufted carpet manufacturers. Currently made with an 8x7 mesh in 114, 150 and 187" widths and in mill rolls of 750' minimum length, the backing is also available in other

SpinSaVac®

Unit Collection Cabinet (Type HI)

Compact, starter on side, full access to motor alley

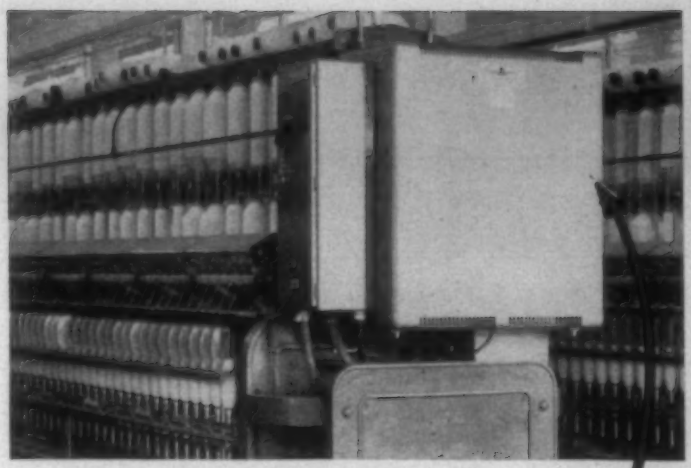
Flush surfaces

Large conical screen—fine mesh saran

Ample volume for collected lint

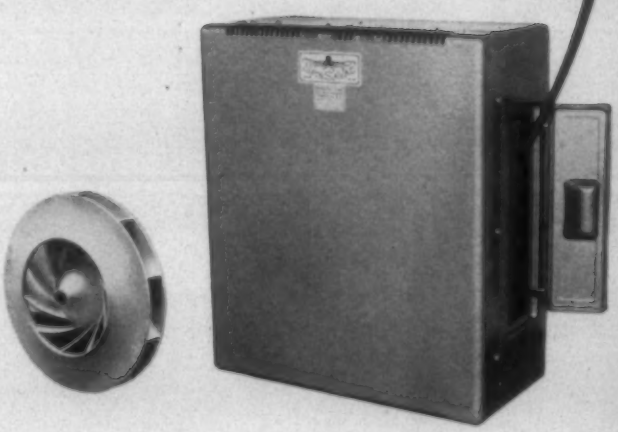
Large door for easy lint removal—air tight gasket locked without gluing

Air exhausted—up, down, or both—at low velocity, well diffused



Central Collection (alternate, not shown)

With provision for exhausting or returning room air



Clearing Conduit

Thick-walled, smooth, ethyl-cellulose

Strong, rigid, non-warping

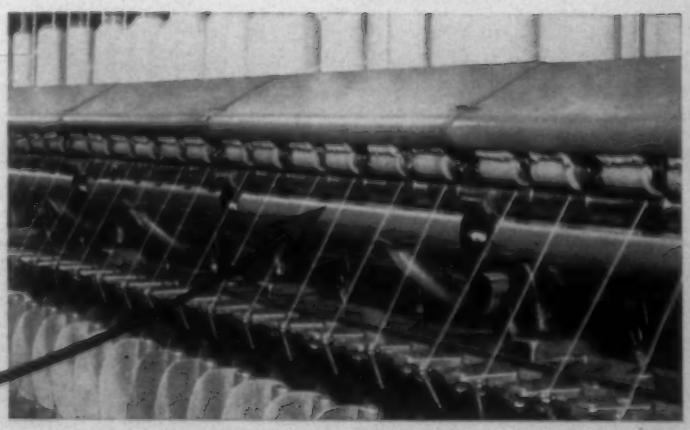
Spring mounted

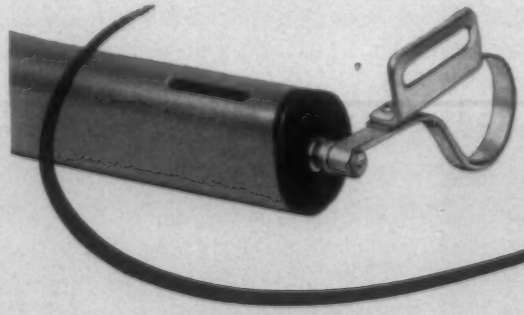
Pear-shaped for accurate positioning and easy piecing up

Conduits on frame interchangeable without adjustment

Vacuum Impeller

Double-shrouded air foil type, for greater efficiency and higher vacuum





Write or 'phone for further information about SpinSaVac and SpinSaCreel

Parks-Cramer Company

FITCHBURG, MASS. CHARLOTTE, N. C. ATLANTA, GA.

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FOR THE TEXTILE INDUSTRY'S USE—

specifications to meet special requirements of the tufted carpet industry.

Marking Deltox's entry into the scrim backing field, Stabiloc Scrim is produced on the same type of equipment used in the manufacture of the company's Delcraft fiber and blended rugs. It consists of a woven mesh fabric of twisted kraft yarns. When laminated to the back of tufted broadloom, the new backing imparts maximum dimensional stability and improved hand to the carpet and also securely locks in the tufts.

The uniformity, squareness of mesh, and high laminating qualities offered by Stabiloc Scrim are achieved through tightly twisting the kraft yarns and through close quality control during all phases of manufacture. Stabiloc Scrim was developed in co-operation with several tufted carpet producers. At its plant in Oshkosh, the Deltox Co. maintains specialized technical and design facilities to aid carpet manufacturers in using the new backing.

(Request Item No. A-9)

Vat Violet

A new bluish vat violet dye has been developed by the American Cyanamid Co., 30 Rockefeller Plaza, New York 20, N. Y. The dye is said to have excellent fastness to heat and moisture even in the lighter shades. It is part of the company's line of Calcoloid vat dyes for cottons and rayons. The dye, Calcoloid Violet BNC Double Paste, produces solid shades that are said to be stable to ironing, pleating or water spotting. Even in pale shades, it is said to have excellent fastness to light. Its dyeings remain fast to chlorine, perspiration, dry cleaning, washing and peroxide.

The fastness properties and good dyeing behavior of Calcoloid Violet BNC can be used to advantage in shading light blue or gray shades, American Cyanamid reports. When used for dyeing cloth on jigs, becks or continuous ranges, the insensitivity of this new dye to heat and moisture aids in quick, accurate and confident shade matching. These same properties are also said to eliminate for the dyer such consumer complaints as over-all or local changes of shade from sprinkling, ironing or pleating the garments or other end-use products.

Because of the dye's reportedly excellent color transfer property, initially unlevel dyeings are readily leveled at temperatures of 190° F. or higher. It has excellent leuco stability at temperatures as high at 250° F. Calcoloid Violet BNC reduces easily and may stain adjacent white material during strongly alkaline treatments.

(Request Item No. A-10)

Metallic Powder Binders

Four types of Metaglo for binding gold and other metallic powders to fabrics are now in active distribution by the makers, Eastern Color & Chemical Co., 35 Livingston Street, Providence 4, R. I. Designed for application by screen or roller printing, Metaglo covers requirements for metallic powder binding on a wide range of fibers and fabrics and is said to excel in application to glass fabrics. Claimed advantages are brilliance, luster and durable bonding—including durability to washing and dry cleaning. (Request Item No. A-11)

Pushbutton Ladder

A pushbutton ladder for use in overhead maintenance is now being manufactured by Holan Corp., 4100 West 150th St., Cleveland 35, Ohio. The new Series 2600 manually operated hydraulic ladder goes up and down by simply pushing a button. The control station is located on the mast, but a remote control station can be installed on the upper right side rail for control by a man on the platform.

For more precise spotting, there is a globe-type needle valve with a long handle. The operator can accurately lower the ladder by pulling on the lever. The rotation crank of the 2600 Ladder is located directly behind the mast. This not only provides for more accurate spotting, but it also cranks easier and is out of the way.

Extension and retraction of the fly ladder is through a windlass located on the right side of the ladder. The windlass rotates a steel drum to which a ⅛" steel aircraft cable is attached. The cable is wound off one side of the drum as the fly ladder is

extended and is wound up on the other side of the drum for retraction.

The new Holan ladder rises from horizontal to the maximum 75° angle in 30 seconds with a man on the platform and fly ladder fully extended; with no man on the platform and fly ladder half extended, it rises all the way in 11 seconds. Two new optional features available on this unit are steel rungs and a fiberglass covering to protect side rails from the weather. Other features are the light-but-strong tubular support frame and heavy-duty lock hooks that engage two rungs at a time. The Holan Series 2600 Ladder has an electric motor—hydraulic pump—reservoir unit for raising and lowering. Maximum operating pressure is 1,200 p.s.i. Three models are for 24, 28 or 32' ground-to-platform heights. On all units, there is 360° rotation and 75° elevation.

(Request Item No. A-12)

Automatic Stapler

Automatic Model T-P Clip Top Packer has been introduced by Container Stapling Corp., 308 North Park Avenue, Herrin, Ill. The unit is equipped with automatic mechanical trip which clenches the staple and retracts instanteously. It cycles through by completely mechanical means. The piston rod is automatically released by the new mechanical trip on completion of the downward stroke, and so is ready to drive the next staple.

The unit requires no air cylinder, servo valve, lubricator or filter. It is said to drive King-Size staple clips at the rate of 400/min., closing filled cartons from the outside. The company reports that it seals any ordinary size shipping case for less than ⅓ of a cent. The new adjustable anvil staples A, B or C flute corrugated board. A simple adjustment of the adjustor screw automatically controls the King Size Clip for any flute thickness.

(Request Item No. A-13)

After-Coppering Blacks

Two new copper aftertreated black dyestuffs that are particularly recommended for producing attractive deep shades on cotton and spun viscose rayon have been brought out by Geigy Dyestuffs, division of Geigy Chemical Corp., Ardsley, N. Y.

These new products are called Cuprophenyl Black BLW 200%, which has a blueish cast, and Cuprophenyl Black GWL 200% which has a jetter shade. They augment Geigy's family of after-coppering dyestuffs, a member of which, Cuprophenyl Black RL, is said to have already acquired excellent acceptance among direct dyes for rayon because of its very good fastness properties and its desirable acetate reserve.

Fastness ratings of the two new materials are generally identical. Typical fastness ratings claimed for these two blacks are: Sunlight—6 on cotton, 7 on spun rayon, and on fabrics with crease-resist finish; fadeometer—the same as sunlight; washing at 160° F., 4-5; sea water, 5; and A.A.T.C.C. rating of 5 on chlorinated pool water, decatizing, wet and dry cleaning, hot wet pressing, acid and alkaline perspiration. The new Cuprophenyl Blacks are recommended for fibers when extremely high fastness to washing and light are required.

(Request Item No. A-14)

Narrow Aisle Lift Truck

A new Warehouser, narrow aisle, electric-powered lift-truck incorporating a 24-volt electrical system, which features a number of design innovations to increase operational efficiency and provide for the accomplishment of more work, has been introduced by Yale Materials Handling Division of The Yale & Towne Mfg. Co., 11,000 Roosevelt Blvd., Philadelphia 15, Pa.

The new trucks are built in 2,000, 3,000 and 4,000-lb. capacity straddle-stacker models all of which will work comfortably in aisles less than 6' with normal loads. Design of the new Yale units is said to be based on an extensive study by Yale engineers of the operating characteristics of narrow aisle trucks of this type coupled with a survey of the operational requirements of users of the equipment.

Advantages cited for the unit include improved operator visibility, convenient placement of controls, easy accessibility of all working parts for service and the pro-

FOR THE TEXTILE INDUSTRY'S USE—

vision of operational accessories to increase the efficiency of the operator.

Provision of a 24-volt electrical system in the new Yale Warehouser is said to increase the over-all operating efficiency of the truck by lowering the amperage required to move and raise loads. The higher voltage provides a high speed of lift and the capacity to work a full shift under severe duty cycle conditions with no loss of efficiency.

An increase of travel speed within the limits of safe operation is also achieved with the 24-volt system. Another advantage of the increased power is the potential it creates for the use of a wide variety of hydraulic attachments on the Warehouser truck. The new Yale Warehouser line is also built in 12-volt system models for applications with lower power requirements and lighter duty cycles.

One feature in the new Yale trucks is the provision of a direction indicator mounted in the hub of the steering wheel. An arrow in the indicator informs the operator of the direction in which the wheels are turned at all times. Because of the over-all conformity of Warehouser type trucks, it is impossible for the operator to see the direction of the steer wheel beneath the truck.

Another feature on the new Warehouser is the placement of an operating hour meter in the dashboard of the truck. By affording a quick means of determining the exact amount of operation of the truck in a given time, the meter can serve as a guide to the most effective truck utilization for the user. The hour meter also provides a simple means for keeping track of maintenance scheduling of the unit.

Drive and hoist motors of both 24 and 12-volt Yale Warehouses are series-wound, high-torque type, ball bearing equipped for long life. A direct gear drive operates in an oil bath to provide long, maintenance free service. Long wearing, smooth rolling polyurethane outrigger, and castor wheels are standard equipment on the new Yale Warehouser.

Minute control through the operating handle makes possible very close inching of the new units and smooth acceleration and deceleration. A positive acting mechanical brake is controlled by a step-up foot pedal and is actuated as a dead-man control when the operator leaves the truck.

(Request Item No. A-15)

Slurry Germicide

Realizing that offensive odors due to the growth of bacteria and micro-flora organisms in textile-processing liquors and slurries continues to cause sanitation and morale problems, the Chemical Products Division of American Charcoal Co., 201 South Green St., Detroit, Mich., has developed a new type of solution germicide.

Research indicates that these organisms soon develop an immunity when subjected to repeated use of one form of germicide. Therefore, American Charcoal chemists pioneered a new theory: Use two different types of germicides in an alternating sequence. By switching from one to the other, resistant strains of bacteria cannot develop.

The result of this research is the development of American Charcoal's No. 66 and No. 68 Germicides which are said to provide continuously effective control of liquor and slurry rancidity and odor under all plant conditions.

Highly concentrated, and with a highly alkaline pH, Germicide No. 66 and No. 68 may be added in small amounts directly into the processing solution. In this way, the germicide is efficiently distributed to all parts of the processing solution and related machinery where odor-producing organisms become established. These colonies are usually destroyed within one hour after the germicide has been added, American Charcoal chemists report.

Important savings are said to be realized because cleaning and sanitizing of tanks, sumps and equipment is accomplished by the processing solution itself—steam-cleaning and other costly procedures are eliminated. ⅓ to ½ pint of Germicide No. 66 or No. 68 is sufficient to sanitize and deodorize 50 gals. of solution, the company reports.

(Request Item No. A-16)

Caustic Soda Booster

Outstanding savings in cost and space requirements are now possible with a new activator called Lonco Alka-Strip booster, produced by London Chemical Co., 1535 31st Ave., Melrose Park, Ill. Using a ratio of 1 pint to 500 gals. of caustic solution, it replaces space-hogging wetting, dispersing, settling and softening agents, according to the manufacturer.

With Alka-Strip Boister, caustic solutions work faster, better and last longer. The manufacturer reports that 1 lb. will do the work of 100 times as much alkali additives, and do it better. Sludge is agglomerated and suspended instead of going into solution or settling on tank bottom, keeping solutions clean and active for much longer periods of time. (Request Item No. A-17)

Adjustable Speed Drive

The Louis Allis Co., 427 E. Stewart St., Milwaukee 1, Wisc., has recently announced the availability of the Adjusto-Spede drive in ratings from ¾ to 7½ h.p. with a stationary field construction. All brushes, commutators and slip-rings have been eliminated, substantially reducing maintenance.

The redesigned construction in these ratings also reduces the length of the drive up to 22%. Both the a.c. motor and eddy current clutch are built into a common housing. The drive shaft, height and diameter dimensions are the same as a standard motor of comparable rating. Motor end brackets are now interchangeable with standard flanges and units can be flange-mounted to the driven machine for further space saving.

In the Adjusto-Spede drive, an a.c. motor drives a clutch drum at constant speed

3 GOOD REASONS FOR BUYING

NEW SACO-LOWELL

*ELM-TEX**

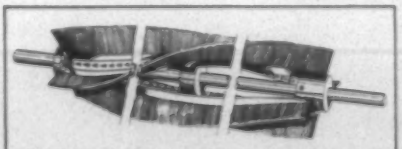
Spiral Flat Brushes for Carding

1. **THEY ASSURE LONG LIFE WITH NO MAINTENANCE**
   No wood cores to turn and polish, no screws to tighten, no need to check for uniformity of brush diameter.
2. **FLATS ARE ALWAYS CLEAN**
   Bristles "do not take a set".
3. **SLIVER QUALITY IS IMPROVED**
   Reduces neps and possibility of cloudy web.

These new Saco-Lowell Brushes are another major step forward in improving card efficiency and costs. The strong yet flexible bristles keep flats clean and the brush lasts many times longer than conventional types. In addition, the assembly comes as a complete unit — thereby cutting installation time and labor to a minimum.

Start saving brush replacement and maintenance dollars — get all the facts about Saco-Lowell Spiral Flat Brushes. Phone, wire or write today and have this latest achievement of Saco-Lowell research working in your mill.

*Registered trade name of Stanley Home Products Inc., Easthampton, Mass.



The Elm-Tex* Spiral Flat Brush is constructed of stainless steel tabs securely fastened to a steel center shaft. The centered steel shaft assures uniform diameter of the brush throughout its length.

THE STANDARD OF QUALITY AND PERFORMANCE Since 1813

SACO-LOWELL REPLACEMENT PARTS DIVISION

SACO-LOWELL SHOPS

Executive and Sales Offices — GREENVILLE, S.C.

District Sales Offices — ATLANTA, GA., CHARLOTTE AND GREENSBORO, N.C.

while speed on the clutch spider (output member) is adjusted by varying d.c. excitation to the clutch coil. Direct current is supplied by a small controller. Finger tip command of drive operations is concentrated in a separate operator's station.

The drive is designed to supply precise operating speeds for machine tools, process machinery, test equipment, windups, conveyors, printing presses, and similar equipment. It is suitable for continuous operation at full load (constant torque) in ranges as high as 34:1 and for intermittent use from 0 to full speed, or any r.p.m. in between. Adjusto-Spede is also intended as an economical method of modernizing existing machinery to run at more efficient speeds.

Said to be an exclusive feature of the standard Adjusto-Spede drive is a tachometer feedback circuit that continually monitors the drive shaft and automatically corrects speed as required. "Jogging" or "inching" control is also standard. Optional control features include: threading; controlled rate starting; multi-point control; or tachometer follower control where the drive unit must match speed established at some other point in the process. The Adjusto-Spede can also be operated by automatic controls such as temperature, pressure and level detecting devices. Bulletin 2750 gives dimensions and engineering information, including a cutaway of the drive's mechanical construction.

(Request Item No. A-18)

For the Mill Bookshelf

Slub Catcher

Foster Machine Co., Westfield, Mass., has issued a 4-page folder describing its Type 51-A slub catcher for the Foster Model 102 winder. The slub catcher is said to be suitable for the inspection and slubbing of all types and counts of worsted, blended and synthetic staple yarns. In operation, the yarn travels over a ceramic base plate through a slot on the entering side and a slot on the exit side. These slots keep the yarn centered under the blade. When a slub strikes the entering slot, the yarn is automatically raised and the slub is caught by the unit's hinged blade. The blade is set at an acute angle to the travel of the yarn. When the blade is struck by a slub, it is forced down to its minimum setting so that the slub is removed or the yarn is broken. The attachment is said to be self-threading, to produce tension and to be usable as a waxing device.

(Request Item No. A-19)

Filament Cutter

Bulletin No. 217 dealing with the Taylor-Stiles 800 Series cutters has been released by Taylor, Stiles & Co., Riegelsville, N. J. Cutter Types 806-B and 806-C are designed for cutting synthetic textile filaments and fiberglass in staple or other uniform lengths at high speed. The units feature circular knives, air suction to hold the fibers in position and an inclined frame. The inclined frame is said to permit the tow, after it leaves the tension rolls, to follow a natural trajectory with no supporting plate, eliminating friction and its accompanying troubles. (Request Item No. A-20)

Magnetic Starters

Cutler-Hammer Inc., 307 N. 12th St., Milwaukee 1, Wisc., has published a new 15-page booklet describing its Three Star line of a.c. magnetic starters. Cutler-Hammer's Three Star line includes a.c. magnetic starters in N.E.M.A. sizes 0-4 for both reversing and non-reversing single phase and squirrel cage motors. Publication EN-150 contains a detailed description of the line's component units and elements. It covers such items as magnet coils, overload relays, contact assembly, enclosure types and a host of others. Description of the individual starters includes general information on each as well as ratings and dimensions.

(Request Item No. A-21)

Circuit Breakers And Enclosures

A compact, comprehensive new bulletin (No. 5004-1A) designed to aid in the selection of molded-case circuit breakers and enclosures has been published by I-T-E Circuit Breaker Co., 1900 Hamilton St., Philadelphia, Pa. The bulletin presents construction and performance features, ratings and details on the line of I-T-E breakers with ratings of 10 through 800 amps. and on enclosures for these breakers with N.E.M.A. 1 through N.E.M.A. 12 classifications. A master selection chart groups breakers by types and current ratings and lists under each the voltage and interrupting ratings for both a.c. and d.c. units, descriptions of overcurrent devices and the accessories and modifications available. Accompanying this chart are photos and descriptions of eight enclosures, ranging from N.E.M.A. 1 to N.E.M.A. 12, which cover the majority of typical applications. To assist in the purchasing of molded-case breakers, the bulletin also presents a sample specification write-up which details all points necessary to assure proper breaker application. Well-illustrated with photos, the 2-color selection guide bulletin is a multiple-fold type, 4x9" —a handy size for carrying in a pocket for ready reference. (Request Item No. A-22)

Acetal Resins

A new 32-page technical manual on the properties and uses of Butvar, polyvinyl butyral, and Formvar, polyvinyl formal, has been published by Shawinigan Resins Corp., Springfield, Mass. Describing the acetal resins, Butvar and Formvar, as extremely versatile terpolymers, the booklet outlines, in detail, the physical properties of the various resin grades. In a separate section, insolubilizing reactions are described. Also included in the booklet is a section devoted to a discussion of formulations and other data for suggested end-use applications. Textile coatings are among the applications discussed. Advantages cited for Butvar as a textile coating are (1) transparency—it can be made into a clear colorless coating which is said to have excellent light resistance and aging characteristics; (2) adhesion—after curing it is said to adhere readily to most fabrics including nylon, viscose rayon and fiberglass; (3) hand and appearance—it is said to give the soft, warm, flexible feel of an uncoated fabric while possessing all the functional characteristics of coated fabrics; (4) functional properties—during drying and curing the coating is transformed to an elastomer which becomes a permanent part of the fabric.

The company reports that a properly coated and cured fabric will be waterproof, resistant to stains of ink, coffee, tea, cooking oils and fats, and will have excellent washability. Butvar coatings cannot be dry-cleaned successfully.

(Request Item No. A-23)

Infrared Spectrophotometer

The Perkin-Elmer Corp. of Norwalk, Conn., is offering a 20-page brochure on its Model 137 Infracord spectrophotometer. Introduced 18 months ago, the Infracord is described as a low-cost, simple-to-operate infrared spectrophotometer designed for use by users of infrared instrumentation. Infrared is used in the textile industry for the study of the structure, orientation and degree of crystallinity in fiber materials, to investigate the intermolecular forces within fiber structure, and to study the concentration of solvent retained after extrusion. It is also used for the study of the chemistry of finishes, the nature of chemical changes in fiber due to aging or chemical treament, and the efficiency of additives designed to combat the effects of fiber exposure to sunlight. The Infracord instrument, a double beam, automatic recording infrared spectrophotometer, is priced at $3,850. Two models are presently available. One scans the NaCl, or 2.5 to 15.0 micron range; a second scans the KBr, or 12.5 to 25.0 micron range. (Request Item No. A-24)

Temperature Control Valves

OPW-Jordan, Cincinnati, Ohio, has announced the availability of two bulletins (J.-180 and SRB 47-59) illustrating and describing the installation of its sliding

gate and plate temperature control valves. The valves are not available in 4" and 6" sizes from stock. They are said to be suitable for heating or cooling applications. The new systems are capable of 30,000 lbs./hour steam capacity or 2,300 gals./minute of water. They accurately control temperatures from 35 to 450° F. and give dead-end shutoff. (Request Item No. A-25)

Pressure Regulators

A new 36-page catalog covering Air Reduction Co.'s complete line of cylinder, manifold and station pressure regulators is now available from the company. The illustrated booklet, ADC 705F, contains flow and pressure specifications, as well as inlet and outlet connection dimensions, for each regulator. Adapters, station valves, flowmeters, hose connections and pressure gauges are also described in detail. A copy may be obtained by using one of this journal's reader service request cards or by writing Air Reduction Sales Co., a division of Air Reduction Co., 150 East 42nd St., New York 17, N. Y. (Request Item No. A-26)

Penford Gums

Penick & Ford Ltd., 420 Lexington Ave., New York 17, N. Y., has released a revised catalog on its Penford gums. The catalog describes the uses of the gum in warp sizing, textile printing, finishing, cord polishing and thread glazing. The booklet provides information on the characteristics and properties of the various gums.
(Request Item No. A-27)

Laugh Book

A new Laugh Book has been published by Precision Equipment Co., 4411F Ravenswood Ave., Chicago 40, Ill. Of interest to everyone, the Laugh Book is of particular interest to those who must make an occasional public address or luncheon speech. Included are cartoons such as "Mr. Breger," "Mr. Hubert," "Cuties," "The Girls" and "Strictly Richter." Also printed in this pocket-size booklet are Precision's "Heard In The Locker Room" jokes. Free copies are available from the company.
(Request Item No. A-28)

Drip-Proof Pancake Motor

The Louis Allis Co., Milwaukee 1, Wisc., has published a 4-page bulletin, No. 2150, on its new drip-proof Pancake Motor that reduces motor length up to 54% over standard motors. The bulletin presents full engineering information on this flange type motor of conventional radial air-gap design that is intended for use on machine tools, roof-ventilating fans and other space-cramped applications. A cutaway drawing shows how the motor achieves its short length through formed end coils and a one-piece housing-bearing bracket.

Additional motor features presented are: rugged cast iron construction, modern appearance, factory lubricated bearings and quiet operation. This drip-proof pancake motor is offered in ratings from 1 to 15 h.p. In all ratings it can be furnished with an integrally mounted brake. Conventional electrical design permits modification of the motor for high torque, reversing duty, multi-speed or intermittent duty applications.
(Request Item No. A-29)

Anti-Static Agent For Synthetics

A new bulletin published by the Onyx Oil & Chemical Co., Jersey City 2, N. J., outlines the advantages of finishing napped synthetic fabrics with Aston 108 and explains in detail the manufacturer's recommendations for proper application of this anti-static agent to this type of fabric. Noting that synthetics have made rapid strides in the napped fabril field as a competitor to cotton, the bulletin points out that a serious criticism of the use of napped synthetics, as of hydrophobic fibers, is their propensity to build-up a high charge of static electricity. It is now possible to prevent this build-up, to allow the static charge to leak of the fabric as rapidly as it is formed, and to maintain this property after a long series of washings. Copies of this literature, titled "Supplementary Bulletin—Aston 108 on Napped Synthetic Fabrics," may be obtained by writing to Onyx on your company letterhead.

Saco-Lowell Handbook

Saco-Lowell Shops has announced the availability of its new Handbook, Volume IV, Edition 5 of "Engineering & Technical Data." The 504-page handbook contains technical information on textile manufacture, from opening through twisting. Special sections are included on lubrication, production tables, electrical and power data, fiber and yarn data, humidification, etc. The book sells for $15.

A.S.T.M. Standards

The American Society for Testing Materials, 1916 Race St., Philadelphia 3, Pa., has announced that Part 10 of its Book of A.S.T.M. Standards dealing with textile materials is in preparation. The section deals with cotton, rayon, wool, felt, glass fabrics, bast and leaf fibers. Part 10 contains 1,532 pages and 267 standards. Cost is $12.

Safety Pamphlet

"Are You Safety Minded?" is the latest publication of the National Safety Council. The full-color pamphlet reports that most accidents are caused by people—not unsafe work conditions. "Some people," it points out, "can work safely in dangerous surroundings, while others manage to get hurt on jobs that should be quite safe." The types of persons who most often have accidents—Sam Scoffer, Fatal Fanny, Johnny Know-It-All and Hazy Harry—are introduced with text and illustrations. Further information on "Are You Safety Minded?" and quantity prices may be obtained from the National Safety Council, 425 N. Michigan Ave., Chicago 11, Ill.

Serving The Textile Industry

Foster Machine Co. Moves Southern Office

The Southern office of Foster Machine Co. has been moved to 1205 Johnston Building, Charlotte. Southern headquarters of the Westfield, Mass., builders of yarn winding machinery for all fibers and all purposes will be staffed by E. P. Dodge, Foster's Southern manager; George W. Mallory of the sales department; Hal E. Hornbuckle, service supervisor; and E. J. Marcotte and C. O. Roberts of the service department.

B. L. Montague Co. Opens New Division

The B. L. Montague Co. of Sumter, S. C., has announced the opening of a new conveyor sales and engineering division at Greenville, S. C. The new division offices are located in the firm's recently opened branch office building, which is located across from the Greenville Municipal Airport on Highway 291 By-Pass.

Curtis E. Green

John W. Thompson

Curtis E. Green, who was formerly the manager of the materials handling department of J. E. Sirrine Co., will head the new Montague Division as director of conveyor sales. Green has been active in conveyor sales for the past 15 years and is considered an authority in this field.

John W. Thompson, formerly chief engineer for the Jervis B. Webb Co. of Georgia, was appointed chief conveyor engineer of the new division. Thompson has been an engineer in the materials handling field for the past 13 years, specializing in conveyor systems.

Johns-Manville Enters Fiber Glass Industry

Johns-Manville became a major competitor in the expanding, nation-wide fiber glass industry recently, with the acquisition of L. O. F. Glass Fibers Co. Transfer of all assets and the going business of L. O. F., second largest in the fiber glass industry in point of annual sales, to newly-organized Johns-Manville Fiber Glass Inc., a wholly-owned subsidiary of Johns-Manville Corp., New York City, has been accomplished.

Johns-Manville Fiber Glass Inc. has taken over management of seven fiber glass plants and a fiber glass research and technical center at Waterville, Ohio, formerly operated by L. O. F. Individual plants are located at Parkersburg, W. Va.; Houston, Tex.; Corona, Calif.; and Waterville, Ohio. Three plants are at Defiance, Ohio.

Parrott & Ballentine Agents For Greenville Steel Co.

D. H. Wallace, president of Greenville (S. C.) Steel & Foundry Co., announced recently that the entire Southern sales responsibility for sale of textile machinery will be handled by Parrot & Ballentine, manufacturers agents, Greenville. Parrott & Ballentine have been sales agents for Greenville Steel & Foundry in some of the Southern states for the past several years.

Coincident with this expanded sales responsibility, John E. Derryberry, a vice-president of Greenville Steel & Foundry, joins the Parrott & Ballentine organization. He will be located in Parrott & Ballentine's office in Greenville and will travel from that office.

Du Pont To Increase Mylar Production Capacity

Plans to increase manufacturing capacity for Mylar polyester film by 30% have been announced by the Du Pont Co.'s film department. Construction to expand the company's Circleville, Ohio, plant will start in the near future, and the new facilities are to be ready for operation early in 1960. This will be the second major expansion since commercial production of Mylar began in Circleville in 1954.

Mylar has found wide acceptance for use as a base for metallic textile yarn, and in laminations with other films and fabrics.

Celanese Changes Name Of Its Textile Division

Celanese Corp. of America has announced that it has changed the name of its Textile Division to the Fibers Division to more accurately indicate the operations of the division. In recent years the division has been diversifying actively into industrial and other new market areas beyond traditional textile end uses. In addition to the new Fibers Division, Celanese has Chemical, Plastics and Foreign Divisions.

Sales, Profits Off At American Viscose

Officials of the American Viscose Corp., Philadelphia, Pa., have reported that the company expects total sales for 1958 to amount to $215 million with profit before taxes in the range of $12 million. In 1957 sales totalled $227,610,000 with profit before taxes of $17,258,000. The company reported that operations in the last half of 1958 improved considerably. In that period, sales increased 23% to about $119 million, compared to $69 million in the first half of the year. Operating profit for the final six months of 1958 rose to $11.5 million from $446,000 in the first half of the year. Dividends paid by the company during the year were $1.50 a share.

James Hunter To Represent Sjostrom Knotwood Apron Co.

Sjostrom Knotwood Apron Co. of Boca Raton, Fla., manufacturer of Knotwood steel feeder aprons, has appointed James Hunter Inc., Greenville, S. C., as exclusive selling agent for all the Southern states.

Ira L. Griffin Sons Inc. Producing Size Applicator

Ira L. Griffin, owner of the several patents covering features of the Griffin size applicator, has announced that Ira L. Griffin Sons Inc., Charlotte, N. C., is now the only licensed manufacturer and distributor of Griffin size applicators. Griffin says this new plan will enable the firm to render quicker, more efficient service to the users. New models now being produced incorporate several important advances over the original model which Griffin developed and started manufacturing five years ago. Outstanding original models can now be converted to include all the new features of the latest Model SA-1-59.

Wash & Wear Institute Opens New York Offices

The American Wash & Wear Institute has opened offices at 101 West 31st Street, New York City, according to George Fine, president. The institute is in the midst of initiating a standardized certification program for use in the testing of wash-and-wear fabrics. The certification system features two tags: one showing a green seal to indicate "Little or No Ironing Required," and the other showing a yellow seal to indicate "Minimum Ironing Required." The institute believes, Fine said, that at the present time a "No Ironing Required" classification is impractical and that it is unwise to unconditionally certify for such performance due to the many variables involved in manufacturing wash-and-wear as well as conditions of home laundering.

New Charlotte Facilities Being Built By Geigy Dyestuffs

Geigy Dyestuffs, division of Geigy Chemical Corp., with headquarters in Ardsley, N. Y., has begun construction on a new

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1926 "IF IT'S PAPER" 1959

one-story 60,000 sq. ft. structure of modern design in Charlotte to house offices, laboratory and warehouse. The building is situated on a 13-acre plot on Mount Holly Road facing the new Highway 16.

The project is under the supervision of Frank F. Myers of Geigy's Charlotte office. When the building is completed about July 1, 1959, Geigy will move from its present quarters on 528 W. 11th Street which the company has occupied for many years. Newly designed laboratory and pilot plant equipment will be installed in the new building aimed at increasing customer service. Storage facilities will be vastly improved, permitting larger stocks to be carried. The production department will also contain mixing equipment for the standardization of dyestuffs. The building is of brick, concrete, steel and aluminum construction.

Thermoid Co. Becomes Part Of H. K. Porter Co.

The Thermoid Co., manufacturer of industrial rubber and friction products, has become a part of the new Thermoid Division of H. K. Porter Co., Pittsburgh, Pa.

Porter's new Thermoid Division will manufacture and market all products formerly made by Thermoid Co. and Porter's Quaker Rubber Division, which include such brands as Thermoid, Quaker, Quaker Pioneer, Amco, V-T, Southern Asbestos and Aeroduct rubber and friction products for industrial use. The division's plants are at Philadelphia; Trenton; Pittsburg, Calif.; Nephi, Utah; Huntington, Ind.; Danville, Ill.; Charlotte, N. C.; and Mexico City.

The new division is headed by Warren E. Hill, former Thermoid president, as vice-president and general manager; and George Dauphinais, vice-president-operations. The sales organization is headed by J. R. Alexander, vice-president-marketing, and E. G. Counselman, general sales manager.

New Starch Possibilities Seen In New Type Of Corn

Development in research quantities of a new type of corn with extraordinary possibilities in the production of new types of starches has been announced by National Starch Products Inc. and American Maize-Products Co., co-venturers in the project.

The companies said that the project, in being since 1953 with Bear Hybrid Corn Co., Decatur, Ill., and the U. S. Department of Agriculture Northern Research Laboratory, Peoria, Ill., is a dramatic demonstration of co-operative investigation and research between private enterprise and government.

Future uses of the corn, called amylomaize, are expected to include use as a permanent finish for fabrics and use in low-cost fabrics made from a combination of cotton and corn starch.

The Du Pont Co. Awards Grants For Education

The Du Pont Co. has awarded grants totaling nearly $1,200,000 to 139 universities and colleges in its annual program of aid to education. The program is for fundamental research by the schools and for strengthening the teaching of science and related liberal arts in the 1959-60 academic year. Du Pont nearly doubled its grants for unrestricted research in the physical sciences because of the growing need for this type of work and because of the flexibility of this form of support. The fields covered by the grants include chemistry, chemical engineering, physics, mechanical engineering and metallurgy.

Riggs & Lombard Opens New Southern Office

Riggs & Lombard has announced the opening of its new Southern office at 227 West Third Street in Charlotte. L. T. Parkman, a sales engineer for Riggs & Lombard for the past five years, has been chosen to head up the new office, described as "a direct sales office whose objective is to provide better and quicker contact service in Southern markets for customers and friends" of the company.

Parkman will represent all three divisions —Riggs & Lombard Inc., Cook Machine Co. and Parks & Woolson Co.—whose resources were recently combined to supply all types of finishing equipment. A graduate of the University of Maine, Parkman served as sales engineer for Westinghouse Co. before joining Riggs & Lombard.

Also based at the company's new Southern office is Jim Cook, of the Cook Machine Co. division of Riggs & Lombard. Cook will specialize in activities concerned with cotton finishing and bleaching equipment.

PLANNING THE 1959 A.A.T.C.C. CONVENTION—The 1959 national convention of the American Association of Textile Chemists & Colorists will be held October 7-10 at the Park-Sheraton Hotel in Washington, D. C. The association's Washington Section will act as host for the meeting, with Dr. Leonard Smith and Nelson Getchell of the National Cotton Council serving as chairman and deputy chairman respectively. Shown here in a preliminary planning session are *(seated, left to right)* Dr. Esther Batchelder, chairman of the ladies committee; George Paine, A.A.T.C.C. executive secretary; George O. Linberg, A.A.T.C.C. president; Dr. Leonard Smith; and Nelson Getchell. Standing *(left to right)* are R. E. Rettew, representing the Piedmont Section; Arnold Sookne, technical program chairman; Ralph W. Carr, reception chairman; J. R. Wiebush, hotel chairman; Louis Mizell, finance chairman; George Fulton, exhibit chairman; George Lourigan, transportation chairman; Robert Graham, registration chairman; John Cook, printing chairman; Ed Oliva, tours chairman; and A. R. Thompson, publicity chairman.

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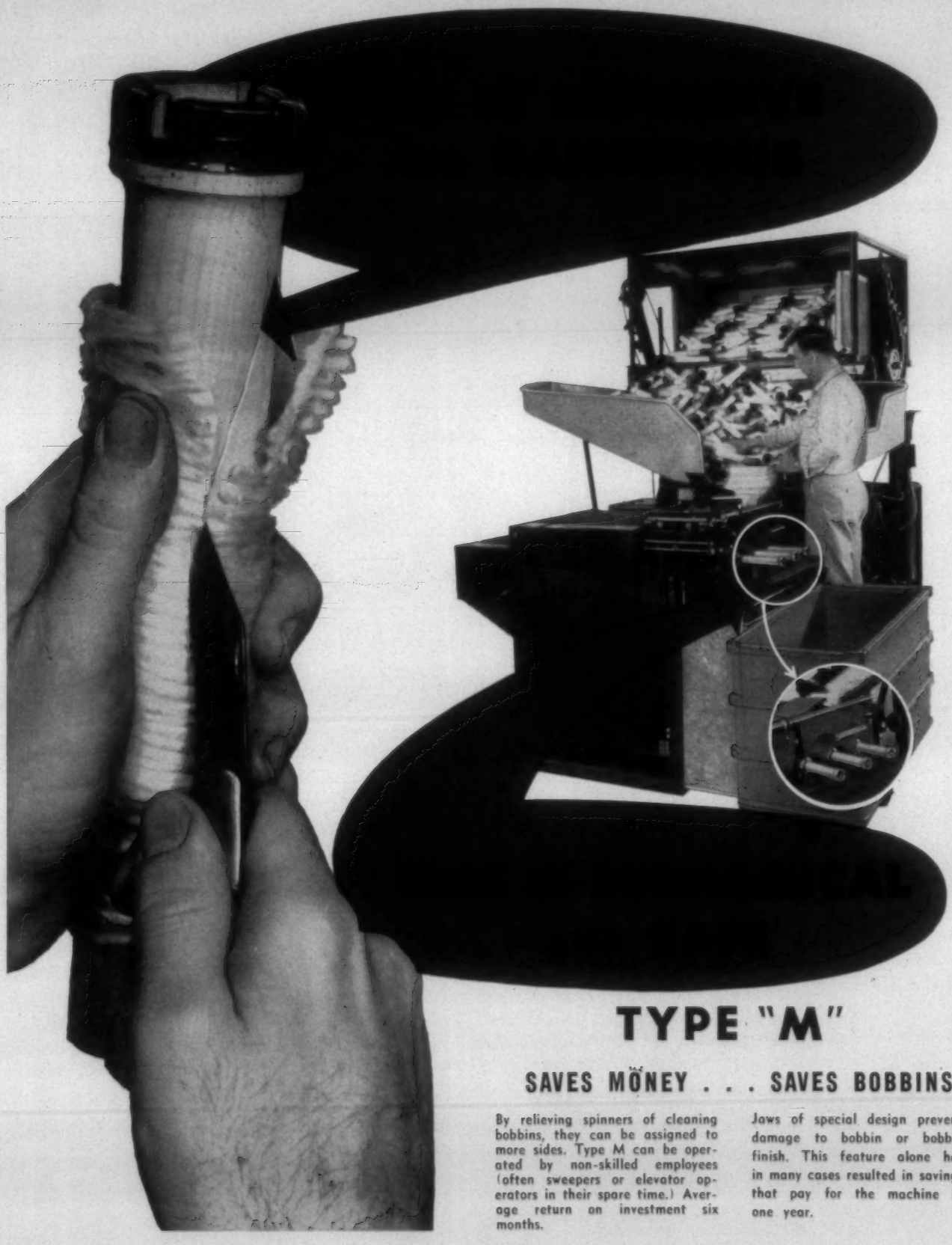

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textile bulletin

VOL. 85 JANUARY 1959 NO. 1

Is The Barometer Rising?

Association Spokesmen Analyze A Disappointing '58; Speak Optimistically Of '59

Halbert M. Jones

PRESIDENT, AMERICAN COTTON MANUFACTURERS INSTITUTE

"With the plus signs now evident in the market place, the U. S. textile industry will have a bright future if its troubles with federal policies can be effectively solved . . ."

THE U. S. textile industry, judging by expressions of confidence from a wide variety of interested parties, moves into 1959 with more reason for optimism than it has had since the turn of the decade. By and large the outlook is for a steady advance based on a realignment of domestic productive capacity with demand.

The Federal Department of Commerce indicated its confidence in the industry in a report that reviewed the industry's position in 1958 and outlook for 1959. The report predicted some improvement this year in the cotton broad woven fabrics and woolen worsted segments of the industry and a substantial upturn in man-made fiber broad woven fabrics.

One of the most welcome forecasts came from a financial service that told its readers, "Over a three-to-five year period the stocks of this currently depressed (textile) group boast handsome price recovery." This service was one of several that have recognized the potential strength of the industry and have so advised the financial community. Textile securities, in quite a few cases, have reflected this faith through advances over the past few months.

The optimistic opinions of both the financial analysts and the Department of Commerce have been borne out to some extent by the significant upturn in the fabric markets in last quarter 1958. Certainly, this has been the most heartening factor to textile manufacturers themselves. The market started to improve in the final months of 1957 but then followed the national economy into recession. Now, however, the national economy is showing a healthy recovery and all signs indicate a continuation of this forward progress. Textiles are expected to keep pace.

One of the most significant bright spots in the textile picture is the changing attitude of the federal government toward the industry and its problems. The textile industry, probably more than any other large manufacturing industry, is extremely sensitive to government action. Consequently, injurious agricultural and foreign trade policies have been most destructive to our industry.

Now, however, we feel that progress is being made in efforts to get relief. We must escape such disastrous policies as the two-price cotton system and a foreign trade program apparently intent on exporting American textile jobs through the admission of imports from low-wage countries. We feel now that a shift in attitude was indicated by the appointment of a Senate subcommittee to study the

problems of the industry as they relate to government policies. The chairman of that subcommittee, Senator Pastore, a Rhode Island Democrat, has said that the investigation has shown that the textile industry of America needs special consideration or it will be lost. An official of the Department of Commerce, Undersecretary Frederick H. Mueller, said while testifying before the subcommittee that the federal two-price cotton system was unfair and that the department hoped that a change would be forthcoming.

We feel that the only workable and lasting solution to our problems with low-wage imports is a reasonable quota system to regulate the flow of yarn, cloth and garments into this country. This is the only practical method for insuring an equitable import pattern in the types of textiles imported and for our friendly nations overseas, while preventing disaster to domestic manufacturers and workers.

Incidentally, the U. S.-Japan Trade Council also has said that the industry is in for better times in the immediate future. The council, as a matter of fact, forecast a boom year for cotton textiles in 1959 and continued growth in the 1960s. This report, interestingly enough, coincided with Japan's request for over-all increases in Japanese textile exports to the U. S. This request, I trust, will be laid to rest peacefully and rapidly.

There is another matter that came to light during the hearings held by the Senate subcommittee that holds much promise for the industry, and that is the proposed establishment of a textile advisory council within the Department of Commerce. Such a council, composed of mill executives who are thoroughly familiar with and genuinely concerned for the welfare of the industry and its nearly one million employees, would maintain a continuing interest in textiles and facilitate the flow of information between the industry and government policy makers.

The industry has profited in recent months by editorial support in mass circulation magazines and newspapers. Some of these have noted the inequities of government policies as they concern the textile industry and have called for an end to such injurious programs.

With the plus signs now evident in the market place, the U. S. industry will have a bright future if its troubles with federal policies can be effectively solved.

A. C. M. I. Committee Activity

Foreign Trade

Headed By
W. J. Erwin
Dan River Mills

THE Foreign Trade Committee of the American Cotton Manufacturers Institute made an all-out effort in 1958 to bring to the attention of Congress, the American people and international textile organizations the fallacies of American foreign trade policies as they apply to our industry. W. J. Erwin, president of Dan River Mills, Danville, Va., is chairman of the committee.

Appearances before Congress and its committees did not produce the type of Reciprocal Trade program wanted, but the law enacted in 1958 was much improved from the standpoint of the textile industry in that it offered some provisions that definitely reflected the textile point of view.

The committee has emphasized that textiles have been badly treated in the matter of foreign trade policy and deserve some special consideration such as a quota system on imports from low-wage countries. A.C.M.I. impressed the necessity of such a move on the Senate subcommittee investigating the troubles the industry has encountered because of governmental action. The chairman of the subcommittee, Senator Pastore of Rhode Island, a Democrat, noted that the industry is in trouble and that something should be done for it.

Testimony before Congressional committees, reports to international textile organizations and other public utterances brought the plight of the industry forcibly to the attention of the American public. This has been reflected in increasing editorial support from leading magazines and newspapers.

Economic Policy

Headed By
F. E. Grier
Abney Mills

THE A.C.M.I.'s Economic Policy Committee concentrated its efforts last year on making available to textile manufacturers more and improved information concerning the statistical position of the industry. F. E. Grier, president of Abney Mills and chairman of the board of Erwin Mills, is chairman. It is expected that this work will be pushed in the months ahead to facilitate dissemination of economic information within the industry to provide manufacturers with a factual picture of the many facets of their industry and the pipelines through which their goods move to the market. In line with this effort, A.C.M.I. has expanded its bulletin service to members.

Cotton

Headed By
Ellison S. McKissick
Alice Mfg. Co.

DURING the year 1958 the Cotton Committee of the A.C.M.I. has devoted considerable attention to the many details involved in dealing with the industry's overall problems as related to the fiber. The committee, with Ellison S. McKissick of the Alice Mfg. Co. at Easley, S. C.,

serving as chairman, has been particularly active in the areas relating to cotton quality. Considerable effort was put forth in an attempt to point out to all segments of the cotton industry the severe losses that result from a deterioration in the quality of the fiber prior to the time it reaches the mill.

Much emphasis has also been placed on an attempt to point out the damage that can be done by excessive application of heat to the fiber in the ginning process and by overuse of lint cleaning equipment in the gins.

In connection with this, the committee in an official resolution warmly praised the study of the spinning quality of cotton now being conducted by the National Cotton Council and expressed appreciation to the U. S. Department of Agriculture for its co-operation in this project.

Special Cotton Policy

Headed By
C. A. Cannon
Cannon Mills Co.

THE A.C.M.I.'s Special Cotton Policy Committee placed the full force of its efforts in 1958 behind the drive to get rid of the two-price cotton system and to make cotton a competitive fiber. The committee, headed by C. A. Cannon, president of Cannon Mills Co., Kannapolis, N. C., made it clear that unless cotton is competitively priced, all indications point to a continued downtrend in consumption. In fact, cotton could become a second place fiber by 1965 if the present trends continue.

The committee made progress in its battle for competitively priced cotton. Producer groups have joined in the effort to restore cotton to a healthy position in the textile economy, and there is growing editorial support from cotton textile trade press and from mass circulation magazines and newspapers. Department of Commerce officials have stated publicly that the two-price cotton system is unfair.

National Affairs

Headed By
L. G. Hardman Jr.
Harmony Grove Mills

THE National Affairs Committee of the American Cotton Manufacturers Institute has the task of sifting federal legislation to spot measures that will affect the textile industry. L. G. Hardman Jr., president of Harmony Grove Mills, Commerce, Ga., is chairman. In addition the committee provides general co-ordination for all A.C.M.I.

committee activities in Washington by arranging conferences and appearances with governmental agencies and officials in order to create a better evaluation of policies, decisions and legislative moves affecting the industry.

The following is a list of representative subjects in which the committee and staff will be interested during the coming year: The textile labeling act, labor, tax, states rights and unemployment compensation legislation as well as amendments to the Securities Exchange Act and farm laws.

Frederick B. Dent

PRESIDENT, SOUTH CAROLINA TEXTILE MANUFACTURERS ASSOCIATION

"Textile year 1959 is beginning on a definitely more optimistic note than its predecessor" and "should be more favorable in almost every respect . . ."

THE textile year of 1958 in South Carolina was unquestionably the most competitive year ever faced by the industry. Both production and profits were under heavy pressure for practically the whole year, although the horizon began to brighten somewhat during the fourth quarter.

The year was one of general economic recession throughout the nation's economy, and as such very clearly demonstrated many of the virtues of the textile industry as well as its virility in South Carolina.

In many areas of our country the recession produced mass lay-offs and resultant unemployment crises that created disaster areas in some communities such as Detroit and other centers of heavy industry. Curtailment of working schedules occurred in many textile plants of South Carolina, but no mass lay-offs or severe unemployment were inflicted on textile communities. Our economy, dependent on textiles, was relatively stable in comparison with most of the country.

The textile industry of South Carolina continued to favor the American consumer and to deter the nation's inflationary trend by delivering better products at a wholesale price level of 6% below that of 1947 despite an increase of 31.4% for all industrial products and while paying wages as much as 70% higher than in 1947 in addition to higher raw material costs.

New products, new blended fabrics, new fibers and finishes were introduced in 1958 to continue the great textile revolution that has been going on since World War II under the impact of the most extensive technological progress that has ever been experienced by a fully mature industry.

While false prophets of doom were knelling the end of the textile industry, a completely different future was foretold by quiet events in South Carolina. A new complete spinning and weaving mill was announced by the Alice Mfg. Co. and its construction was begun. The Deering Milliken Research Corp. announced, constructed and dedicated its tremendous research center. The Saco-Lowell Shops announced the site selection for its research department at Clemson. Saco-Lowell and Draper both constructed additions to their South Carolina manufacturing facilities to take care of expanding textile machinery demand in the area. In early October the whole industry was amazed by the machinery innovations shown at the Greenville Textile Exposition.

From these events and other plant building and modernization programs carried out in 1958, it is clearly apparent that the textile industry of the nation in general, and particularly in South Carolina, is progressively moving forward in the interests of all concerned.

Looking Ahead

The textile year 1959 is beginning on a definitely more optimistic note than its predecessor. Most textile lines are experiencing better demand, and production schedules should respond favorably. Profits should begin to gradually improve from the fantastic depths of 1958, but will be retarded by orders placed on the books before the reversal of the trend set in.

The report of the Subcommittee of the U. S. Senate investigating the effects of government policy on the textile industry is scheduled to be delivered early in the year, and could have a very salutary, long range influence on the industry if successful in charting a course for the Federal Government which will reduce its control over many facets of the industry and establish a fair basis for handling importations of foreign fabrics made with cheaper labor and material costs.

The textile industry can look forward to the new farm legislation which will first become effective with the 1959-60 crop which may once again restore the American textile industry rather than the U. S. Government as the No. 1 customer of the cotton farmer with attendant improvement in the spinning qualities of cotton fibers by encouraging better growing and ginning techniques.

Unquestionably 1959 will bring its share of new textile products to further increase the American high standard of living. As is so wholesomely traditional with our industry, these and all other textile products will be pro-

duced on a most competitive basis to the advantage of the American consumer.

Textile 1959 should be more favorable in almost every respect than textile 1958 from all interested view points—management, stockholders and employees, but the extent and duration of this improvement is inextricably related to federal legislative and administrative action in the fields of agriculture, foreign trade, taxes and labor.

W. C. Vereen Jr.

PRESIDENT, COTTON MANUFACTURERS ASSOCIATION OF GEORGIA

Georgia mills have spent millions of dollars for new equipment and added research and production facilities. And they feel that the year ahead holds much promise for them

IN Georgia textile industry leaders are predicting better days for textiles in 1959 than have been seen in general in the past few years. A more promising picture was even seen in the last quarter of 1958. By the end of October, employment in the textile industry in the state of Georgia had risen to 97,300 from 96,900 in the previous month. In the same month, the average work week was 40.7 hours. This was the longest average since January 1956 and was higher than the rate for all manufacturing in this country for the first time since November 1949.

On the credit side of the scene are the recent recommendations to purchase textile stocks by several security analysts. This is the first time in several years that such financial faith has been placed in the industry. Other encouraging factors seen by those in the industry are public statements by textile industry leaders to the effect that cloth and yarn manufacturers are holding the best position in regard to potential strength that they have occupied in a number of years.

Population increase, increase in industrial production in the U. S. and a buying surge said to be of almost record proportions are other factors seen as giving hope to the 1959 picture for textiles.

However, Federal government policies will have a very decided effect, either good or bad, on the 1959 prospects of the 185 textile mills located in Georgia. Our government's existing trade policies are unquestionably detrimental to U. S. textiles. If Japanese demands for larger export quotas are met, domestic producers will find their prices even further depressed by low-priced competitive goods.

I have all possible respect for the ability of the managers and workers in Georgia textile mills, but they cannot compete with foreign manufacturers whose wage costs are from one-half to one-tenth the level in this country. The

additional advantage of being able to buy U. S. cotton at prices 20% lower than domestic mills also accrues to these foreign competitors.

Georgia mills have spent millions of dollars for new equipment and added research and production facilities—even in times when profits have been below the average and production schedules irregular. The demand brought on by the country's rising standard of living and population is just now being felt in the industry. It is unthinkable to me that our government would pursue policies that deny the owners and employees of our mills the privilege of enjoying the fruits of their investments and sacrifices.

E. R. Lehmann

PRESIDENT, ALABAMA TEXTILE MANUFACTURERS ASSOCIATION

"Cautious optimism" among Alabama mill men stems in large measure from a confident attitude that increased research efforts are leading the way to better days ahead

THE so-called "cautious optimism" which entered the general textile scene in 1958 was also seen in Alabama during the waning months of the year. The textile industry in Alabama is one of the state's two largest industries. It employs more than 41,400 persons and distributes annual wages in excess of $160,000,000.

The optimism was backed up by the increase in industrial production in the U. S. and an even more rapid increase in textile and apparel production, the almost steady employment figure in the state's textile industry during the past few months and the rise in the ratio of unfilled orders over that of cotton goods inventories generally.

Figures for the industry as a whole, but which also reflected the Alabama situation, showed cotton goods inventories were equivalent to 5.3 weeks' current production in September and 5.1 weeks' current production in October. On the other hand, unfilled orders were equivalent to 9.1 weeks' production in September and 9.7 weeks' production in October. Thus committed production continued its upward trend.

Other factors giving hope to the textile situation for the next two years are: The approximately 4,000,000 babies born in this country each year which require many textile products—diapers, towels, dresses, etc.; millions of new automobiles which demand upholstery, tire cord, fan belts, floor rugs; new homes which mean carpets, draperies, blankets, sheets, pillow cases, towels; new hospitals which have to be supplied with uniforms, gowns, pillow cases, toweling and other supplies.

Charles F. Myers Jr., vice-president of Burlington Industries, predicts that unit sales by the textile industry in 1959 will increase 4 to 5% compared to 1958 and that industry-wide prices will rise 3 to 5%, with boosts as high as 8 to 10% in some areas. These predictions are based on the estimated rise in industrial output (which directly affects the 23% of textiles which go into industrial uses), population growth—with shift in age group to a larger proportion of those who buy more textiles, liquidation of textile inventories, and replacement of the chemise by the empire look in women's apparel.

The textile industry, one of the last components of free enterprise left in this country, will continue to grow with America. The future will be better if our government does not permit the low-wage countries of the Orient to funnel their products here without paying a tariff sufficient to at least equalize their wage rate with the legal minimum wage rate in this country. The future of the domestic textile industry is also dependent on scrapping the present indefensible and abominable government policy of selling American cotton to foreign mills at substantially less than American mills have to pay.

Research in the textile industry, which will create more glamorous products to be marketed, the decline of the marginal producer and an industry-wide trend toward keeping production in line with demand should mean better days for the industry in Alabama as well as the rest of the nation.

James H. Hunter

PRESIDENT, AMERICAN TEXTILE MACHINERY ASSOCIATION

Mill modernization would benefit two industries: The mills through operation efficiencies; the textile machinery manufacturers through orders booked

THE textile machinery industry reflects the feast or famine periods of the textile mill products industry, but with a lag of about nine months between cycle changes in the textile manufacturing field. With this traditional economic pattern in mind, and heeding the indicated trend toward a textile recovery period, machine builders anticipate better business in the months ahead.

In many cases business during 1958 was at the lowest point since 1933, but toward the fourth quarter there was a decided pickup. In other cases there was good booking through most of the year, due largely to demand for new cost-saving equipment not previously available.

Prolonged periods of low earnings and the resultant lack of cash flow have hampered plans for textile mill modernization through capital equipment replacement. To a great extent this situation could be remedied if adequate depreciation allowances wrere permitted on an industrywide scale. Holding up of revision of Bulletin F, by the Department of Internal Revenue, undoubtedly has delayed many modernization plans and created a bottleneck in machine replacement programs. This further delays recovery of the textile industry.

Many new cost saving technologies have been developed and are available to the trade which in some cases double productivity in pounds per man-hour and permit savings in operational cost of almost 60%. It seems imperative that operation costs of textile mills be offset with savings made possible by the new 1958-59 standards of efficiency in machine productivity.

Recent surveys made of equipment now in place in the American textile industry show that about 75% of capital equipment has been made obsolete by new and improved models currently available. Should the textile industry launch a dynamic plan for modernization through machine replacement, two industries would benefit: theirs through operation efficiencies, and ours through orders booked.

The American Textile Machinery Association has had plans underway for several years for the largest textile machinery show ever held. The event, which will be held in Atlantic City May 23-27, 1960, will be on an international scale. Although a few foreign exhibitors have shown at previous expositions, for the first time a truly international show is being organized. There are six major textile machinery producing countries. Each will have representation in a sizeable way, and for most it will be an initial appearance. More than 400 exhibitors, all told, will occupy the 300,000 square feet of space in Atlantic City Convention Hall, which is now being modernized at a cost of $3 million.

The very fact that A.T.M.A. is sponsoring such a mammoth machinery show is indication that we have full confidence in the textile industry, and that we anticipate continuing modernization planning by progressive mills that know only through efficient operation will they remain in business. With more optimistic psychology existing in the textile area, and with the numerous credit facilities available for machinery replacements in the commercial and governmental channels of finance, it is hoped that by year's end we can review 1959 with satisfaction.

W. Ray Bell

PRESIDENT, THE ASSOCIATION OF COTTON TEXTILE MERCHANTS OF NEW YORK

"After almost two years of weltering in rugged competition under constantly declining price levels, surviving units of the textile industry will undoubtedly rejoice in an upturn which promises to restore the incentive of profitable operations . . ."

IN the seven years following Korea, production of cotton broad woven goods in this country have roughly averaged about ten billion linear yards annually, indicating consistently high levels of consumption despite three distinct periods of market recession. The last of these recession periods, except for occasional short-lived spurts, extended throughout the entire year of 1957, and was not checked until early Summer 1958. The diminished output of 1957, amounting to a decline of 778 million linear yards, or 7.5% below yardage production of 1956, proved insufficient in depth to prevent further accumulation of mill inventory or to correct the prolonged depreciation of market values.

More drastic curtailment of 1958 productive operations has accomplished a further cut, estimated at 563 million linear yards for the first nine months of the year. Thus, the probable output for 1958 may be reckoned in the neighborhood of nine billion linear yards, a decline of 6% from 1957 and nearly 13% from the post-war peak of 1956. An equivalent estimate in square yards, based on current factors, would be approximately 10.5 billion for 1958.

Genuine Recovery At Hand

This is the most severe production adjustment since 1949 for it means a per capita available of less than 60 square yards for domestic consumption. Its significance has already been established in the markets where the relief from inventory pressure has allowed improvement in market value on many depressed constructions of fabric. Beyond the corrective price movement and its prod to dilatory buyers has come an awareness of low reservoirs of inventory and empty pipe lines in the channels of trade. In past experience these have been certain signs of market transition from tight, hand-to-mouth buying practices to the more liberal acceptance of forward purchasing policies.

With the genuine recovery which is now indicated, textile mills can reasonably expect a supplement of trade inventory demand to the ordinary requirements of more than 175 million American consumers. After almost two years of weltering in rugged competition under constantly declining price levels, surviving units of the industry will undoubtedly rejoice in an upturn which promises to restore the incentive of profitable operations. They can hardly expect an immediate jump of 8 to 10 cents per pound which would be necessary to bring staple greige goods like print cloths and sheetings back to the relative values and processing margins of early 1956. However, the perspective is for gradual betterment in this most neglected area and, in the absence of stagnant inventory or excess production, a strong market will continue to generate its own recovery.

Household Products Show Vitality

Even in the depressed period through which we have just gone, some elements have managed to swim against the tide and by so doing, have preserved an orderly and healthy distribution of their products. Perhaps because of control over all stages of production, conversion and fabrication, plus greater freedom in direct approach to the consumer, the makers of household products, in general, have weathered the long period of slump better than most. By the nature of their products, it is vital that excessive mill stocks be avoided and that production activities stay geared to consumption requirements. With the latitude of speculation limited largely to wholesale and retail stages of distribution, improvement in consumer demand has a quicker reflection in the primary market, especially when buying policies are under tight control of financial rather than marketing experts.

Besides the closer consumer contact, producers and sellers in the field of household textiles have a further advantage in the specialized character of their productive facilities. While their products, such as sheets and pillowcases, towels, bedspreads, blankets, etc., have more specific fields of use, there is a minimum threat of encroachment from other existing facilities for the purpose of adjusting to irretrievable shifts in market demand.

This relative immunity of household goods producers to market problems of other plants contrasts with the great

flexibility of industrial and apparel fabric mills where loss of markets in one field may well and frequently does mean added supply in the other.

A classic example is the cotton bag trade where, according to National Cotton Council studies, consumption of bag fabrics required 355,000 bales of cotton in 1951 and only 155,000 bales in 1957. Representing a market loss of approximately 220 million linear yards to the cheaper commodities of paper and imported burlap, this decline over six years has caused liquidation of some mills and forced other to crowd into the competition for supplying apparel use fabrics.

Since the brunt of price competition from paper, plastics and nonwoven materials has centered on the area of industrial uses, it is not strange that the six year loss in this broad division has been estimated at the equivalent of a million bales of raw cotton. Of total output, the percentage estimated for industrial uses has dropped from 31 to 21. The industrial division has, of course, added products of man-made fibers which in some measure offset this sharp decline in their cotton products.

Growth Of Apparel Trades

Fortunately, corresponding gains have been realized in the third major division—apparel uses—which in 1957 accounted for about 50% of raw cotton consumption in the National Cotton Council's analysis. In 1951, the percentage of total industry output going to apparel was reckoned at less than 37%. This experience of growth, both actual and relative, emphasizes not only the major importance of this area, but the changing character of market demand and the ready response of mills to the adjustments of supplying it. In providing for the innumerable items that together make up the apparel business, practically every type of fabric is competitive and a wide variety of finishes adds to their selective attraction.

Facilities used in stimulating and satisfying the diversified needs and desires of the American public for wearing apparel embrace virtually all elements and successive stages in textile industry and commerce. For most of the primary mills making broad woven goods, this function is the chief and often the sole source of livelihood. It is even more important to several hundred finishing plants and to other hundreds of firms in the converting trades which are customers of the mills and employ the finishers' skills and techniques. Many thousands of apparel manufacturing establishments, located in every state of the union are directly involved and their customers, in aggregate, total untold millions of wholesale and retail dealers for whom traffic in apparel items is vital to existence.

Consumer Is King

In essence, each factor in the entire chain of production and distribution is aiming at the ultimate consumer and catering to his necessities and whims. This vast consumption represented by the American public, man, woman and child, has steadily grown over the years to a present reckoning of more than 175 million persons. From 1951 this is an increase of 21 million or more than 13.5%. And despite changing tastes and satisfactions, it is evident that consumer purchases of apparel items, in total, have been well sustained in physical volume during the recent years of mercantile caution and general employment of

hand-to-mouth buying practices throughout the avenues of trade.

The recovery in cotton textiles, with its special emphasis on the expanding market for apparel goods does not signify that there is a huge pent-up demand and the makings of a market boom. We have no Korean War plunge into a tide of soaring prices and speculative inventory accumulation such as distorted the early part of the decade, brought about later downward excesses, and even now contributes to mistaken analysis of what lies ahead. Rather we have a situation underlining our forecast of a year ago that recovery would come "when the buying trades recover sufficient courage to prepare for future business with confidence," a courage usually provided by "the prod of advancing prices or inability to obtain immediate delivery on wanted merchandise."

There is the prospect for a steady offtake of merchandise. Public confidence is being shown. Retail supplies are on the moderately low side of consistency with demand. The industry's customers at long last are having to face up to the curtailments of the last 21 months and the necessity for anticipatory buying, an anticipation which is enhanced by the fact that the public is selective in its demands and desires not just ordinary goods of past times but goods having advantages of styling and built-in characteristics of minimum care, no iron, wash-and-wear, new finishes and effects—all qualities associated with forward contracting and advance planning. Mills are acquiring order backlogs currently which reflect alike the precariousness of dependence on immediate replacement of staple goods from stock, and the necessity that the public is offered the qualities it has indicated are desired.

To replenishment of distribution inventory and restoration of the pipelines has been added the spur of a change in the price trend which can lead to better employment, more opportunity to the industry to realize profitable operations, and the powerful influence exerted on the whole national economy when the textile and textile products industries are contributing their share of life blood to the veins and arteries of American business. This too is a substantial boost to the textile recovery, and it is doubly significant since any improvement is not an addition to items which our economy has caused to become over-priced, but to the least privileged areas in that respect.

The October 1958 BLS wholesale index for cotton products was only 87.9% against an all non-food commodity index of 126.4, cotton goods being 38.5 points or about 30% under the general average. The cost of living price index likewise shows clothing at well below average with an index of 107.3 against 119.7 for food and 127.9 for rent. An orderly improvement from these depressed conditions must constitute a long delayed and much needed adjustment in the economy.

1959 MAID OF COTTON—Malinda Diggs Berry, a brown-haired 20-year-old beauty queen and honor student from Oklahoma State University, was named 1959 Maid of Cotton last month at Memphis, Tenn. The daughter of an independent oil producer at Stillwater, Okla., Miss Diggs has blue eyes, is five feet, six inches tall, and weighs 125 pounds. As the 21st fashion and good will envoy of the American cotton industry, she will be the first Maid of Cotton to travel around the world. A seven-month international tour beginning January 28 will include 14 stops in Europe, Asia and the Far East, as well as visits to 30 major cities in the U. S. and Canada.

Dismantled And Idle Spindles Mark Adjustment

It is important to recognize, in this transition from recession to recovery which has been underway for several months past, that the textile industry was forced to carry on a "bootstrap" or "do it yourself" operation. As in its previous history, this meant drastic measure of production curtailment, reduced employment and the sacrifice of mill activity. Inevitably there was liquidation of plants whose financial resources were not equal to the long strain of profitless competition.

Census statistics show that since the beginning of 1958 another 478,000 spindles have been removed from the total of installed plant machinery. This adds up to 1,529,000 dismantled spindles within the last three years, a decline of 7% since the beginning of 1956. Beyond this liquidation of potential capacity, idle spindleage has averaged around 1,400,000 and for the working equipment, average hours of active operation have suffered a sharp decline. Such records of past and current performance are stark testimony to the economic misery through which the industry has had to battle its way unaided out of recession's gloom into the dawn of recovery.

Unlike other sections of the American economy, which have been favored with direct government subsidies, financial and tax benefits or which have enjoyed large scale government buying of their products, textiles have been made the ugly ducklings of the national barnyard. In consequence, textile people have become leading critics of a foreign trade policy which fundamentally discriminates unfairly against the American producer of textiles and apparel while at the same time it grants special privileges here to his foreign competitors and bounties abroad. The rising tide of cheap foreign made cotton goods flowing freely through our home markets remains an unsolved problem which will hamper recovery as it weighted the burden of recession. Although apologists may cite the

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limited yardage compared with domestic production, they conveniently ignore the undermining influences of infinitesimally low prices on American values, the still heavy concentration of imports in limited segments of the industry's production, and the increased emphasis on apparel shipments which pyramid the labor advantages through three processing stages and thus short circuit essential elements of the American economy. They attempt to minimize the precipitous rise in volume of apparel imports during 1958, and for the first nine months of the year, a gain of 18% in yardage of piece goods imports at the very time American production was under stringent curtailment.

What Congress Should Know

When the Congress begins to examine the situation, it will find that American mills must pay the full government support price or better for American cotton; they must meet or do better than the minimum wage standards set by the Fair Labor Standards and the Walsh-Healey Public Contracts Acts; they must generally operate in compliance with a multiplicity of federal, state and local laws and regulations which comprise social and labor legislation for the American living standard; and they must sell goods requiring such cost of manufacture in foreign markets where restrictions are many and, chiefly, in the home market where government has emasculated the tariff structure which once buttressed our living and working standards.

Advantages For Foreign Mills

It will also become aware that foreign mills have no such burden. In raw materials, they have the benefit of our surplus cotton at prices 20% under what American mills must pay. They have added gain from our financing of their cotton purchases and our arrangements of three-way deals, involving U. S. purchases of foreign textiles to supply non-industrial countries. They enjoy the benefits of technological and marketing advice freely given them by our government. To cheap cotton they add the advantages of wage rates which in Japan, the most industrialized competitor, are but a tenth of the wages paid in the U. S. while the sweatshop labor of the British colony of Hong Kong is paid in the small average weaving mill less than seven cents an hour. And although Japan has adopted a voluntary quota which has three more years to run, its industry has already begun to push for an increased share of our market, especially in the areas of gingham and wearing apparel where concentration is still most pronounced. Our oncoming recovery is offered as a basis for higher expectations without any recognition that import acceleration helped to prolong the recession period. More justifiable is the contention that quantitative restrictions are not applied to similar goods imported from other countries and particularly from Hong Kong whose shipments of cheap apparel products to the U. S. have tripled in 1958 after a tenfold rise in 1957.

Since our government departments (State, Commerce and Agriculture) have endorsed the principles of orderly marketing and diversification of product as established in the Japanese arrangements, it would seem imperative that similar procedures be inaugurated for other textile producing nations. This would provide, not only for equality in our international relationships, but an over-all limit to the uncertainties of destructive foreign competition and their undermining of the domestic economy.

The Labor Outlook For '59

The National Level

By LARSTON D. FARRAR*

WHAT'S the outlook for labor legislation in '59 from the new, 86th Congress? And what's ahead between employers and employees, insofar as the wage-cost spiral is concerned? To answer the second question first, it is necessary to glance back—briefly—at 1958.

In terms of industrial peace, 1958 was one of the best peacetime years on record, according to Secretary of Labor James P. Mitchell, who said that strike idleness, as measured in man-days, was about the same as in 1951 and 1954, but lower than any other postwar year except 1957. The number of work stoppages beginning in 1958 was estimated to be the second lowest in any year since World War II. Perhaps even more significant than the actual number of work stoppages were the many "important industries and establishments in which contracts were negotiated or renegotiated without a work stoppage," Secretary Mitchell noted. Successful bargaining without a strike or lockout took place in the bituminous coal, paper, telephone and rubber industries, West Coast lumber, West Coast shipbuilding, and West Coast longshoring industries, in most of the aircraft manufacturing industry and in most of the maritime industry.

"The number and nature of the industries and establishments in which there are contract reopenings or expirations during the year largely determines the number of work stoppages," the secretary asserted. "It is gratifying that labor and management negotiated or renegotiated so many important contracts this year with so little loss of working time."

While the number of workers involved in stoppages beginning in 1958 was substantially higher than in 1957 and 1954, it was slightly less than the average of other postwar years. The man-days of idleness recorded during the last third of the year were substantially the result of local stoppages in the automobile industry. The estimated 3,440 stoppages beginning in 1958 was just about the postwar low of 1948. Only two-tenths of 1% of estimated working time was lost by work stoppages in 1958, a low rate for peacetime.

But there was *one* significant point left out of Secretary Mitchell's sanguine year-end roundup of the labor picture. He failed to point out what the Department of Labor had disclosed in other reports issued at the same time; namely, that increases in wage rates were negotiated or put into effect in '58 for about 85% of all employees covered by major collective bargaining contracts. These bargaining situations, each covering 1,000 or more employees, affected approximately 6.8 million workers. Of these workers, 3.5 million obtained increases as a result of settlements concluded during the year, preliminary estimates showed. Rate

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*Larston D. Farrar, one of the nation's most prolific business writers, is the author of the fast selling Signet book, *Washington Lowdown*.

The Textile Industry

By FRANK A. CONSTANGY*

IF one were to characterize the success or lack of success of the textile unions in organizing plants in the Southern textile industry in terms of better or worse, a candid characterization would inevitably require a characterization that the year 1958 was "one of the worst" from the standpoint of progress made by the unions in their efforts to organize the Southern textile worker.

With the one exception of the Courtaulds Plant in Mobile, Ala., there has been no significant organizational victory in the Southeast by either of the textile unions in the past year. The fact that there has been no major success does not reflect the fact that efforts have not been made, nor does it reflect the fact that in some instances while the union efforts have failed, these efforts and the resultant loss were merely the initial moves in a longer range plan for ultimate organization in some plants, designed, they hope, to lead to future organization.

Both the T.W.U.A. and the U.T.W. have engaged in a number of major campaigns during the past year. They have participated in a number of campaigns and have been on the ballot in a number of elections. But the combinations of lack of confidence in the unions, the depressed condition of the textile industry for a good many months of the preceding year, and the impact of the public exposure of corruption in the unions have all had their toll in preventing unions from making any significant progress in the Southern textile industry.

In addition to losing a number of major elections, some of which were in plants widely heralded as major objectives and which involved the expenditure of substantial sums of money and the activity of a great many organizers, there have been several substantial strikes which occurred during the past year, which have not helped the status or stature of the unions in any particular. Among these are the strikes at P. H. Hanes Knitting Co., Winston-Salem, N. C., and the strike at Harriet-Henderson Cotton Mills, Henderson, N. C.

The past year marked an internal reorganization in the Textile Workers Union of America, resulting in a break-up of its Southern regional office at Charlotte into several regional offices with bi-state regions and a wider dispersal of the union's organizing staff. In the U.T.W. the Southern leadership has gradually passed from the group which formerly was in charge to a newer group made up of former subordinates, in keeping with the internal changes brought about through the revelations of the McClellan Committee and the intervention of the A.F.L.-C.I.O. There has been relatively little activity on the part of other unions, other than the T.W.U.A. and the U.T.W. in the Southern textile industry. One notable exception was Dis-

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Labor Outlook: The National Level

(Continued from Page 39)

hikes were supplemented by cost-of-living adjustments in a number of cases. Some 3.3 million workers received increases under deferred and/or cost-of-living adjustment negotiated in earlier years but effective in 1958. The raises most often averaged 12 cents an hour (roughly $1 a day), with 6 out of 10 workers receiving at least this amount. The average advance was about the same as last year.

However, in 1958 a much smaller number of workers received increases of 15 or 16 cents, while the proportion receiving either 12 or 17 cents or more rose significantly. These variations resulted primarily from differences in cost-of-living adjustments in two major industry groups. Adjustments were larger in '58 in basic steel and related industries, but smaller for the non-operating railroad brotherhoods. The most common average rate increase negotiated during 1958 was eight cents an hour. Including cost-of-living adjustments, the most frequent advance was 13 cents an hour, with almost half of the 3.5 million workers affected by 1958 negotiations receiving at least this amount.

A majority of the workers covered by '58 negotiations also received increased supplementary benefits. About the same proportion of agreements negotiated in '58 as in '57 liberalized fringe benefits, but there was some decline in the number of supplementary benefits changed by each contract.

What does this resume mean—for '59?

Since the first part of '58 was a depression period, and the economy was picking up speed only gradually in the last half, it is obvious that organized labor did not sit idle in 1958, as evidenced by the foregoing wage concessions. Labor-management observers generally expect labor union leaders to be even more avaricious in '59, because the economy is expected to be going toward new highs in virtually every field.

In short, labor didn't ease up on its wage demands even during the "recession." As the statistics show, employers caved in pretty regularly, many of them not even showing token resistance to the demands of the labor leaders. And there is general agreement that labor will make even higher demands in '59 than it did in '58. The cost of living is confidently expected to continue its march upwards—particularly in the last half of the year. As noted in the '58 resume, many wage contracts now are tied to the cost-of-living index. If it rises precipitously, then the wages of the laborers covered by these contracts also will rise. At the same time, this will generate covetousness among other labor union leaders and their members, who are expected to demand more and higher increases in their wage rates.

However, because of the pressure on profits and the fact that consumers have shown they will shop around for better prices, employers are expected to stiffen their collective backbones in '59. If they do, it is easy to understand why some observers are predicting a year of gradually rising employer-employee strife, with more strikes, slow-downs and work stoppages than in any recent year.

There is one other development in the wind from the labor union front. That is, bolstered with higher dues and more money in the till than ever before in history (due to the lack of strike-losses in recent months), labor leaders are employing more organizers than ever before. They intend to step up organizing efforts among unorganized groups in all areas, and they are particularly intent upon the South and the Southwest, due to the industrial growth in those areas. This development also is tied in with labor's political gains, which were impressive in many border states, as well as in the heavily-organized industrial areas all over the map in the East, Midwest and Far West.

On the Congressional front, it might be well to rehash some recent history in order to bring the picture more clearly into focus. Perhaps by viewing how far we have come, we can judge how far we will go. The McClellan Committee, which has been turning the spotlight on labor racketeers for some years now, can be expected to go right on with its work during the new Congress. The continuing public popularity of this investigating group is assurance that, despite the opposition of many labor Senators, such as Senator Pat McNamara (D., Mich.), it will be able to carry on without interruption.

The 85th Congress put on the shelf much of the legislation which was introduced because of the findings of the McClellan Committee. The Senate passed a watered-down version of the original bill, but the House of Representatives would not take it. There is expectation that essentially the same legislation—drawing brickbats more from employer groups than from labor union leaders—will get through both the Senate and the House of Representatives. However, this legislation could not, by any means, be termed "anti-labor," and is designed merely to give minimum safeguards against corruption in labor unions, and to guard against labor union-management collusion.

Even more important, from the standpoint of textile interests, is the drive to raise the minimum wage from $1-an-hour to $1.25-an-hour, or even to $1.50-an-hour, as many labor representatives—i.e., members of Congress with strong labor ties—have urged.

There now are some 600,000 employers, with close to 26,000,000 employees, covered by the minimum wage law. A lot of the employers, of course, pay much more than the minimum wage to their employees under labor union contracts. But a raise in the minimum wage to $1.25 an hour would be extremely costly to many, many employers in all areas of the country, and if the minimum wage coverage were to be extended, as seems likely, many of the small businesses not now affected by it would feel the impact keenly.

Senator John Kennedy (D., Mass.), chairman of the Senate Committee on Labor and Public Welfare, announced shortly after the recent election that hearings on a raise in the minimum wage, and extension of its coverage to millions of workers not now covered, would be the committee's first order of business.

Both the Republican and Democratic platforms favor a rise in the minimum wage and extension of its coverage to other groups in the economy. However, many Democrats, particularly those from Southern areas, are violently opposed to the idea of extending the coverage, or of raising the minimum.

Whether or not organized labor has the votes, in the Senate or the House of Representatives, to put across an extension of minimum wage coverage, or of a raise in the

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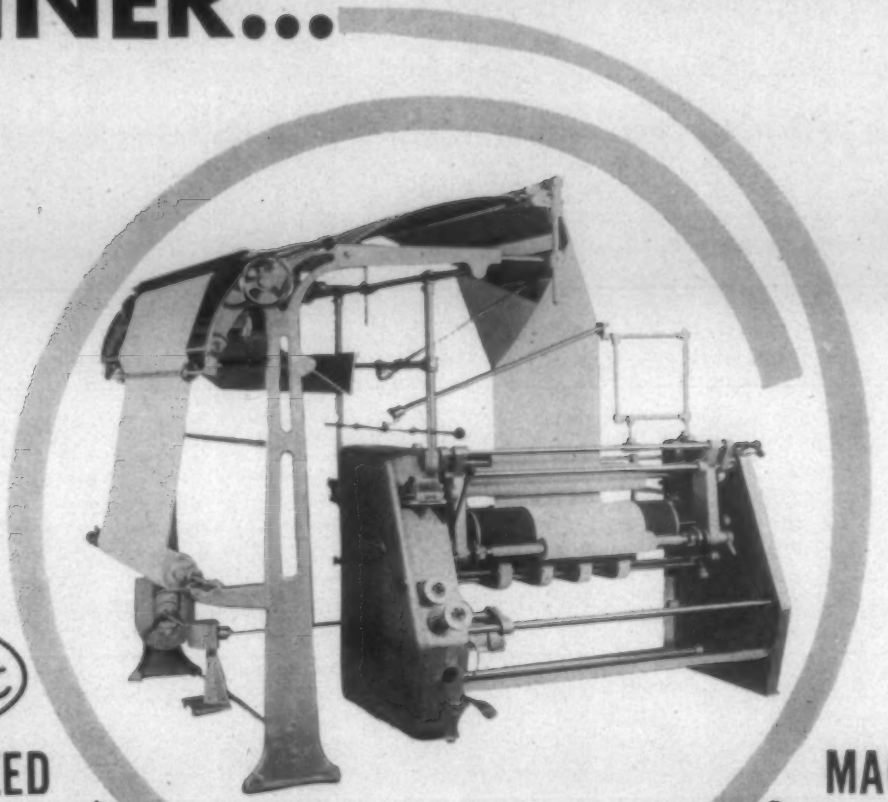

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minimum to at least $1.25 an hour, remains to be seen. At this stage, any change in the law, *this* year, seems to be extremely unlikely. However, as the election becomes closer in '60, and the Democrats and some Republicans feel the need to garner more labor votes in the Fall of that year, it is possible that the outlook will change and that a raise in the minimum wage will be voted.

The more aware political observers, studying the results of the 1958 national elections, in district after district, have pin-pointed one fact that may not bode well for the labor leaders, in some of their objectives, particularly with respect to increasing the minimum wage, and more particularly with extending its coverage. Their analysis of the vote indicates that "Main Street merchants" shifted in their voting from Republican to Democratic, apparently because of the fear of a downturn in retail trade, because of "tight credit," or for other factors. At any rate, more Congressmen, in conversation, attribute their election to this shift in small business votes than they do to the votes of labor union members, as such. The Democrats figure they have been getting the labor vote all along, but that the added stimulus of the Main Street merchant change made a big difference to the individual victories across the country.

What this means is that, when organized labor's objectives, such as the extension of the minimum wage, threaten to upset the Main Street merchants, a lot of normally "liberal" Democrats—on other issues—will become "conservative" long enough to find it in their hearts to put off action on the issue.

For example, some of the Senate's most famous liberals, such as Senator Hubert Humphrey (D., Minn.), are strongly in favor of "Fair Trade," which labor opposes. However, because many Main Street merchants favor "Fair Trade," Senator Humphrey continues to support it vigorously. He makes up for this dereliction—in labor's eyes—by voting with the labor union leaders almost solidly on other issues, of course. The point is that *if* small businessmen begin to feel the heat of labor organization (and many of them are now) and start throwing their weight around politically, they can make quite an indentation. There are 4.2 million businessmen, and some 4,000,000 of them are classified as "small businessmen," many of them not heretofore covered by the minimum wage or perturbed by union labor leaders. As labor becomes more and more organization-minded, pushing for the smaller units of business, these small businessmen might become more vigorous in their political action, and, as noted, those 4,000,000 votes represent a strong balance of power minority.

Organized labor now boasts of 18,000,000 members. As the elections show, a growing number of these members are "voting labor," although in some areas the voters who belong to labor unions are at odds with their own leaders on certain issues, i.e., civil rights. One of the principal problems of organized labor leaders is that of devising stratagems by which they can "woo" their own members to stand for the same social, economic and allied objectives which these labor leaders espouse. They are succeeding—to a degree. If they ever succeed wholly, of course, the 18,000,000 labor members can form their own party and sweep the nation, without doubt, since no politician would dare to antagonize that many voters and expect to be elected to high public office.

There is one other point to bear in mind, in regard to the "politics" of the present situation. If the liberals among the Democrats and Republicans strive to change the rules of the Senate, and also rob the House Committee on Rules of its present power, they may alienate many Southern Democrats and cause a more closely-knit opposition group among the predominatly conservative Republicans and the Southern Democrats. This can have repercussions on other issues when and as these come before the Senate and the House.

For this reason, many conservative thinkers are hoping that the liberals, in the first few weeks or months of the new Congress, will create lots of fire—and animosities—that will melt some of their possible power in the coming months.

Yet, after all is said and done, it cannot be disputed that labor *did* gain many new adherents on Capitol Hill as a result of the recent national elections and that while labor union leaders may not be able to push through all, or even a major share, of the legislation they want, they will have a strong veto over all the legislation that is called up for action. They will not "rule the roost," but they undoubtedly will have much to say about the nature of legislation passed and its final form. Labor lobbyists will have a much more respectful hearing, wherever they go on Capitol Hill, than they have had in many, many years.

Management will face its labor problems individually, of course, in area after area. But management may gain a new sense of urgency, due to the tremendous competitive pressure, from at home and abroad, to fight more vigorously before conceding another inch to the more predatory labor union leaders. Granting that this happens, it seems certain that Secretary of Labor Mitchell, come next year, will not be able to boast about a year in which there was "industrial peace." Instead, he may report that management stiffened its backbone, fought against wage increases tooth and nail, and held the line more stringently than it has in recent years, when "cave in" has been the order of the day in most industries.

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trict 50 of the United Mine Workers' gaining a foothold in a finishing plant at Hartsville, S. C., which had formerly had a contract with the U.T.W.

While the past year was an unsuccessful one from the standpoint of the unions' objectives, the prospects for the coming year do not necessarily forebode an equal lack of success on the part of the unions. It is certain that the next year will be one which will be marked by considerably increased activity and efforts to organize. It must be realized that the gradually improved demand for textile products and improved operations in the textile industry in and of themselves stimulate organizing drives. These same conditions have brought to the fore again the question of the wage rates in the textile industry as compared with wages paid in the more prosperous and profitable industries. The unions have already begun an extremely widespread circularization through handbills and leaflets which play up the theme of possible wage increases and of the unions' availability as a vehicle for such wage increases. There is no question but that wages will be one of the major propaganda devices used by both textile unions during the coming year. The indications further are that the T.W.U.A. at least, is resorting more and more to broadside circularization of textile employees in an effort to find spots where some employees will express interest in unionization.

Another factor which will have an impact on the organizing drives in the coming year is the November election victories of so-called liberal Democratic Congressmen and Senators. This gives the unions at least a hope of Congressional action in the direction of restoral of pre-Taft-Hartley Labor laws or even more one-sided pro-labor Federal legislation in the field. The Southern textile industry is already aware of the propaganda that is being circulated directed toward repeal of Section 14 (b) of the Taft-Hartley Act which legalizes state right-to-work laws. Actually, the textile unions have not been able to make much progress since the days of the Wagner Act when anything they did and everything they wanted had the support and sanction of the Federal Government, and the employer was inevitably found to have been wrong in whatever he did.

For several years now the T.W.U.A., particularly, has dreamed and talked of a return to the Wagner Act, or the writing of a little Wagner Act which would be expressly tailored to enable unions to organize textile workers in the Southeast, whether the workers wanted to be organized or not.

The best proof of this attitude can be obtained from an examination of the type of testimony and programs submitted by the union at the various hearings held by the Pastore Subcommittee. In those hearings the union consistently continued to place, in the last analysis, the onus of its inability to organize Southern textile workers upon the fact that the laws are no longer written or construed to virtually make it mandatory that workers join unions. They have proposed a number of amendments to the law, including an elimination of all free speech by employers, and the use of injunctive procedures to require employers to recognize and bargain with unions, regardless of whether or not their employees chose the union, or regardless of whether or not the union represents an uncoerced majority of the employees. In the last analysis, they have said to the subcommittee that the panacea for the ills of the textile industry is the unionization of the industry. The anomaly is the lack of an explanation of the fate of the New England textile industry which was virtually completely organized at the time of its decline.

The outlook for the coming year indicates that the drive will be by segments of the industry, by individual plants, and by communities and areas. The indications are for more co-operation in these efforts between other unions already in the locality and the textile unions who seek to come in, and further participation by the A.F.L.-C.I.O. itself, in the organizing efforts. All in all, it is clear that the combination of the decline in union membership, the lack of union victories in recent years in the South, and the hope of Congressional help in putting them over where all else fails, coupled with the necessity of justifying the continued existence of a large organizing staff will in combination make for renewed and extended campaigns by the textile unions throughout the Southern textile industry during 1959.

This makes it imperative that Southern mill management, if they wish to continue to avoid unionization, constantly re-examine their own houses and see that they are in order. Each plant must examine its relationship with its own people and their understanding of the problems which they and the employees face; it must re-examine its wage level and structure and see that it is as high as it can be made within the limitations of the competitive conditions and within the limitation of what is possible from an economic standpoint, and that it is equitable within the plant itself. What the industry must do, it must do voluntarily, and not as a result of legislation.

It is clear that if the industry awaits Congressional action, such as a higher Wage and Hour minimum as the basis of wage adjustments, it will have, by such action, literally affirmed what the unions are saying—namely, that only unions and their political action affiliates can offer workers in the Southern textile industry the hope of higher wages and improved working conditions. This, of course, has not been true in the past and it is not likely to be true in the future. It must be borne in mind, however, that if the industry does not alert itself and avoid the risk of such a course, it will be providing the unions with an effective propaganda device, which can be made the basis of a substantial and persuasive argument by the unions in favor of affiliation with them as the door to increased textile wages.

The possibility of the renewed organizational drives being successful in 1959 is in direct proportion to the lethargy of textile employers. If the textile industry in its relationships with its own employees fails to remain alert, fails to examine, re-examine, and constantly correct those things affecting its employees which require correction, then the organizing drives in 1959 are likely to be much more successful than those in 1958. Employers must stay in touch with their employees, make them understand the problems of the industry and company, as well as their own, and make them understand their stake in the success of the company for which they work.

Spartanburg, S. C.

A $2,000,000 Key To Research

Deering Milliken Research Corp. Dedicates Its Vast New Research Center

A two-million dollar center, described by company officials as the largest, most comprehensive research installation in the U. S. textile industry, was opened in December in Spartanburg, S. C., by Deering Milliken Research Corp. The new research center is housed in two buildings with a combined area of about 80,000 square feet. The 13-year old organization, which moved to Spartanburg from Pendleton, S. C., holds 130 patents in fields of textile products, machinery, devices and processes.

The occasion of the opening was taken by the company to announce four new products: (1) Belfast, a new finish which chemically modifies the cotton fiber and makes possible a permanent, "no-iron" fabric; (2) Agilon, a stretch nylon yarn used for a wide range of products from hosiery to rugs; (3) Milium, a metalized fabric used as an insulating lining for outer garments and draperies; and (4) Type 160, Type 190, Wearon and Redline, all new buffing wheel fabrics which are engineered for specific jobs.

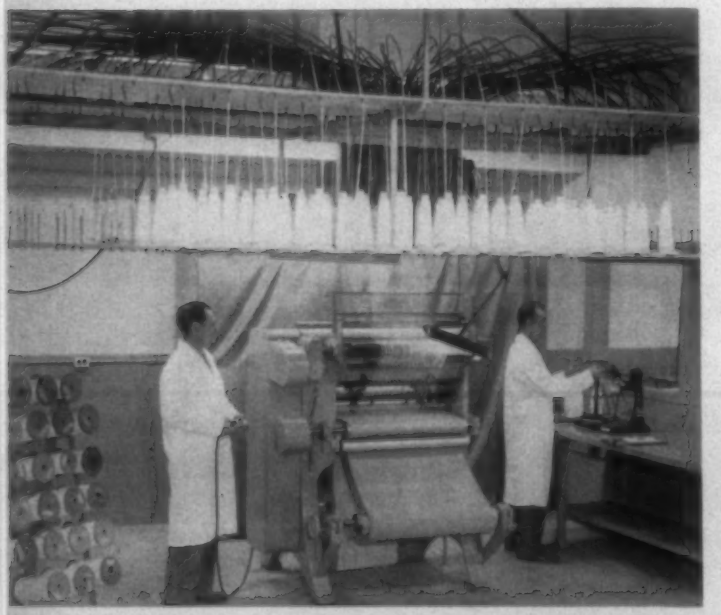
The buildings include many specially designed laboratories and testing areas and three pilot plants. The pilot plants have a total area of 10,000 square feet. Four air-conditioning systems, coupled with complete insulation, will permit scientists to control temperature and humidity during experiments. Individual room controls are provided. The air is distributed in much the same manner as water in a shower, hot and cold air being fed into a mixing box in each room. Insulation, including a polyethylene moisture-vapor barrier in the floor, permits better control of temperature and humidity throughout the building.

An air-conditioning control panel, located in the boiler room, is equipped with instruments which indicate basic data on equipment and conditions throughout the building. Thus by a push button, it is possible to read the room temperature or the temperature of air-conditioning equipment in distant parts of the building. The systems were especially designed by engineers of Deering Milliken Research Corp. and the Carrier Corp.

Other features of the buildings include completely automatic boilers to provide steam for processing or for heating. The boilers require no firemen. Emergency lighting, an important feature in windowless buildings, is provided. Agilon carpeting, manufactured from Agilon stretch yarn is used in all areas except laboratories and other areas where vinyl asbestos tile or concrete is more practical. A 130x200 foot pool, with a combination of fan spray nozzles and jet nozzles, is provided for cooling the water for the air-conditioning system.

The exterior of the new facility is precast concrete over a steel frame. The walls were precast in tongue and groove panels 7½x13 feet. Wall panels have a core of Foamglas 1½ inches thick, providing in a wall five inches thick insulation equal to that of a 21-inch brick wall. The face panels are rough textured graded quartz with a grouted matrix.

Housed in the building are a series of two-man chemical laboratories to which compressed air, gas, steam, and hot and cold water are piped. These laboratories are also equipped with acid-proof drain lines. The building contains a chemical wet laboratory, an electronic research center, photography laboratory, physical testing laboratories, utility laboratories, center for fiber and mechanical research, product development, library designed for 6,000 volumes, a conference room to seat 100 persons, and administrative areas.



This tufting machine is in one of the three pilot plants in the new Deering Milliken Research Center which plays an important part in the development and testing of carpet yarns. Carpets manufactured on such a machine provided experimental samples for the first carpets made of Agilon textured yarn.

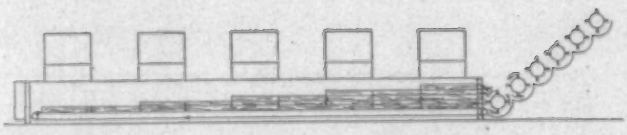
About The Company

Deering Milliken Research Corp. was established in 1945 at Clemson (S. C.) College with about six employees. The first building was a brick bungalow housing a spinning laboratory in the kitchen, a machine shop in a bedroom and administrative offices in the living room. After a few months, the corporation was moved to the basement of the textile school building on the Clemson campus. After about a year and a half, the corporation was moved to Stamford, Conn. In 1950, it was moved to Pendleton, S. C., where it functioned until moving to the new Spartanburg site.

Russell B. Newton is president and treasurer of Deering Milliken Research Corp.; Dr. N. C. Armitage, vice-president; Robert W. McCullough, secretary; and Paul

FIBER CONTROLS

BLENDING AND CLEANING SYSTEMS FOR MAXIMUM EFFICIENCY AND ECONOMY



SYNCHROMATIC BLENDING SYSTEM — designed to Prevent False Blends under all conditions. Will blend ANY combination of fibers automatically. Labor Saving—automatic operation removes the "human element." Facilitates constant quality and cost control . . . reduces waste. Maintains an accuracy of blend of plus or minus 1%.

Perfection of design makes this system extremely Economical to operate and maintain.

Top photo—a typical installation of the Synchromatic Blending System.

Drawing at left—shows the process flow. The conveyor is synchronized to receive accurately weighed fibers from each of the feeders forming a continuous, interconnected, overlapping band of sandwiches which is fed into the blender.

We invite your inquiry concerning more complete details of our Blending and Cleaning equipment.

Call or write:

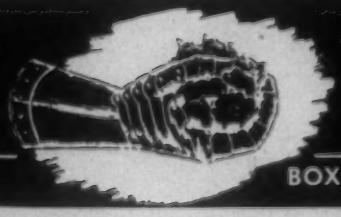
FC FEEDERS and JUNIOR CLEANERS

FIBER CONTROLS modern Blending Feeders and Pre-Opening Cleaners enable you to increase the production while maintaining a high standard of quality.

Write for Spec. sheets.

FC-83 SCREENLESS CONDENSER

This NEW condenser, made for Heavy Duty and High Production, has proven itself in efficiency and capacity production. Will handle up to 2000 lbs. of fiber per hour through ducts approximately 200 ft. in distance. Will discharge fiber without — Tumbling — Rolling or Pilling. Self-Cleaning. Write for spec. sheet.



FIBER CONTROLS CORPORATION

BOX 1358 *GASTONIA, NORTH CAROLINA*

The machine shop to support experiments of the Deering Milliken Research Corp. is larger than machine shops required by many textile mills. This view is only a part of the machine shop in the new Deering Milliken Research Center at Spartanburg.

Martin, assistant secretary. Members of the corporation's board of directors are Roger Milliken, Marshall C. Stone, Mr. Newton, Alan B. Sibley and F. G. Kingsley. Stockholders in the corporation include approximately 27 manufacturing companies located in Maine, New York, North and South Carolina and Georgia. The common selling agency for the manufacturing companies is Deering, Milliken & Co. Inc., New York City.

The corporation does not manufacture any of the items on which it holds patents. The items reach the market through manufacturing companies which are licensed by Deering Milliken Research Corp. The staff includes mechanical engineers, electronic engineers, chemists and chemical engineers, and patent attorneys.

Belfast Introduced

The new Belfast process which was introduced involves a change in the molecular structure of cotton fibers. According to Roger Milliken, "whenever this fabric is wet, each individual fiber remembers where it belongs and moves until it returns to the position it occupied in the original smooth, wrinkle-free condition." It is the "only fabric that can be wrung out to remove excess moisture without leaving wrinkles," he said. "Belfast fabrics can be wrung out, by hand, in a wringer, or spin dried in automatic washing machines and be ready to wear when dry. This new development eliminates the 'drip' in wash-and-wear," he added.

In addition to the self-ironing properties, Milliken explained, the new fabric possesses many other improvements:

(1) The fabric produces a new level in comfort in contact with the skin. Cotton achieves its comfort because of its moisture content. Belfast fabrics contain 20 per cent more moisture than ordinary cotton.

(2) Unlike other man-made fibers, Belfast cotton releases dirt and stain easily because of the slippery condition when wet, while other fibers tend to attract and hold dirt.

(3) The fabric is free from odor.

(4) It resists mildew and bacterial damage and stains.

(5) It dries 30% faster than ordinary cotton.

(6) It is non-irritating.

(7) These properties are permanent for the life of the fabric which can be washed and bleached at home or in commercial laundries without damage to or loss of any of these characteristics.

The U. S. textile companies licensed to produce Belfast fabrics include Cannon Mills Co., Cone Mills Corp., Cranston Print Works, Southern Bleachery & Print Works, and J. P. Stevens & Co. Sheets, pillowcases, diapers, crib sheets and women's dresses are expected to be among the first Belfast products to reach the consumer market. Belfast dressgoods are said to require absolutely no ironing.

How Belfast Works

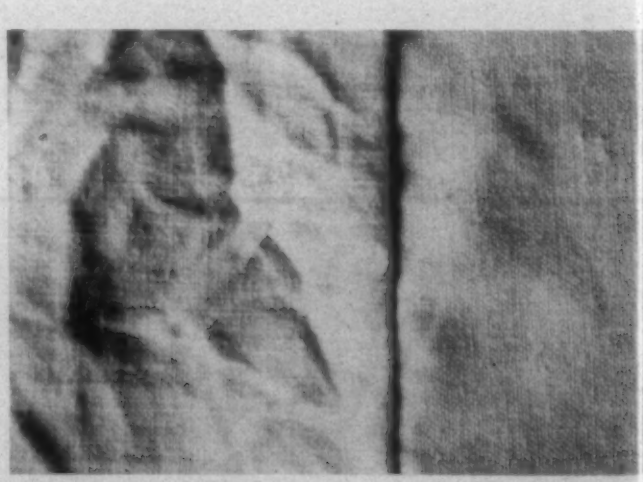
In explaining how Belfast works, it must first be noted that the cotton fiber's cross-section shows growth rings just like those of a tree. These rings are formed during the growing season at night when the fiber is not exposed to the rays of the sun. The next day another ring is formed as the fiber grows. The rings are held together by fibrils which go in one direction for awhile and then, for some mysterious reason, start back in the other direction.

When the fiber is bent or subjected to strain, as occurs during wrinkling, the fibrils elongate and the growth rings telescope. If bent far enough the fibrils rupture and they do not come back to their former positions. This forms a wrinkle.

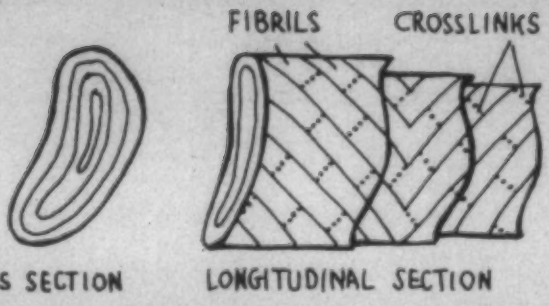
The Belfast finish overcomes wrinkling by supplying an elastic crosslinking between fibrils. This elastic crosslinking is a molecular bond. When a Belfast fiber is bent the bonds stretch. When the strain is taken off the fiber the bond pulls the fiber back to its original position. The Belfast finish thus, actually changes the fiber's molecular structure and makes a new fiber without the extruding processes used in making synthetics.

The process is applied to cotton in fabric form at speeds of 100 yards per minute. The fibers are swollen as much as possible prior to crosslinking. The process is economical and can be done on conventional wet finishing (resin treating) equipment with some modifications. A curing oven is not needed.

Agilon, a textured nylon yarn, is another product of Deering Milliken Research Corp. The product was predicted by Milliken to set a new standard of quality for all products of textured yarn. "This new method permits a degree of uniformity never before possible in the processing of textured yarns," he said. Already used in over a



This sample of ordinary cotton fabric *(left)* and Belfast *(right)* was wet and wrung out before drying.



Deering Milliken's new Belfast finish changes the molecular structure of the cotton fiber by supplying elastic crosslinks between the fibrils. The crosslinks pull the fiber back to its original position when any strain is removed, eliminating wrinkling.

dozen brands of women's hosiery, Agilon, through this new development, is now going into the sweater and rug field. The first Agilon sweaters will make their appearance on the counters early next Spring.

Over the past two years the Karastan Rug Mills have done extensive development work with Deering Milliken Research Corp. in developing carpets of Agilon yarns. Karastan manufactured the carpets now installed in the Milliken Building in New York City and in the new research facility in Spartanburg. Agilon, being a textured filament process, imparts to carpets the improved wear life that filament yarns offer over yarns made of cut staple. Agilon carpets are no-pilling, resilient, stain resistant, easy-to-clean, moth and mildew proof.

The process of making Agilon yarn is exactly like curling Christmas ribbon by pulling it over a scissors blade. In the Agilon process the yarn is heated to the melting point first. In this manner the change is made permanent. The yarn is fully lofted by the process but its strength is retained.

Milium is a process for metalizing fabrics for use as insulating lining for outergarments. Another increasingly important use of Milium is in lining for draperies. Roger Milliken reported that the Hilton and Statler hotel chains were using Milium lined draperies and were finding savings in air-conditioning and heating costs.

Milium insulated linings have a thin coating of aluminum applied to the inside of the lining. When used as outergarment lining, this coating reflects body heat keeping the wearer warmer in cold weather and deflects the sun's hot rays keeping the wearer cooler in warm weather. They require no special care. They are commercially dry cleanable and healthfully porus. They are reported to make fashions hang better, drape better and look better.

Other new products of Deering Milliken research announced included four types of buff fabrics. Type 190, Type 160, Redline and Wearon. Each of these fabrics is trademarked on every yard. Type 190 is used in standard buffing applications while Type 160 is a softer fabric engineered for finer work. Redline is a heavier duty fabric which is especially good for buffing nickle, stainless steel and silver.

Wearon, the latest buffing fabric, is chemically treated and is engineered for tough buffing jobs. It is said to head up more quickly than other fabrics, require less buffing compound, and resist fraying and tearing. It is particularly durable in cutting down flashings and fins and in buffing irregular shapes. Wearon reportedly lasts up to77% longer than regular buffing wheel fabric.

a few **FACTS** about
SWEDISH CARD CLOTHING

The World's Finest Card Clothing
by EVERY Standard

Swedish STEEL
Swedish QUALITY
Swedish PRECISION

Case Histories of Two Well Known Southern Mills* That Are Using SWEDISH Clothing

Mill No. 1

Swedish-clothed cards in this mill produce 1,779 pounds more sliver per year than cards equipped with conventional clothing. This is true because the hardened point Swedish clothing is ground only once in 90 days as compared to the ten day grinding schedule for conventional clothing. Moreover, the actual grinding time of Swedish clothing is about half that required for conventional clothing. Actual savings on 5-day week, 50-week year (or 250 working days) are:

WITH COMPETITIVE CONVENTIONAL CLOTHING	
Grinding Cycle	10 days
Grinding Time	8 hours
Production	10 lbs./hr.

Conventional

$$\frac{\text{250 days/year}}{\text{10-day grinding cycle}} = \text{25 grindings}$$

25 × 8 hrs. × 10 #/hr. = 2,000 pounds lost

Swedish

$$\frac{\text{250 days/year}}{\text{90-day grinding cycle}} = \text{2.77 grindings}$$

2.77 × 8 hrs. × 10 #/hr. = 221 pounds lost

2,000 pounds lost
— 221 pounds lost

1,779 pounds *more* production with Swedish clothing.

In addition to the important increases in production the mill has eliminated two grinders at a saving of approximately $7,000 per year through the use of the Swedish card clothing.

Mill No. 2

Swedish-clothed cards in this mill are producing approximately 1,892 pounds more sliver per year than cards equipped with conventional clothing. Mill records show that when the Swedish-clothed cards were stopped for grinding after *185 days* of operation, they had a lower nep count than any of the conventionally-clothed cards. Actual savings on a 5-day week, 50-week year (or 250 working days) are:

Conventional

$$\frac{\text{250 days/year}}{\text{10-day grinding cycle}} = \text{25 grindings}$$

25 × 8 hrs. × 10 #/hr. = 2,000 pounds lost

Swedish

$$\frac{\text{250 days/year}}{\text{185-day grinding cycle}} = \text{1.35 grindings}$$

1.35 × 8 hrs. × 10 #/hr. = 108 pounds lost

2,000 pounds lost
— 108 pounds lost

1,892 pounds *more* production with Swedish clothing.

* Names on request.

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Partial List of Southern Mills Using SWEDISH Card Clothing

Abney Mills
Aleo Mfg. Co.
Amazon Cotton Mills
American & Efird Mills
Appleton Plant (J. P. Stevens & Co.)
Aragon Plant (J. P. Stevens & Co.)
Avondale Mills

Beaunit Mfg. Co.
Berkeley Mills
Bladenboro Cotton Mills
Borden Mills
Burlington Industries at Asheville, N. C., Cramerton, N. C., Fayetteville, N. C., Mooresville, N. C., Oxford, N. C., Kings Mountain, N. C., Gastonia, N. C., St. Pauls, N. C.,

Callaway Mills at LaGrange, Ga. and Milstead, Ga.
Cannon Mills
Carlton Yarn Mills
Carolina Mills
Carolinian Mills
China Grove Mills
Collins & Aikman Corp.
Columbia Mills
Cone Mills, Dwight Div. at Alabama City, Ala., Gibsonville, N. C., Greensboro, N. C., Reidsville, N. C., Pineville, N. C., and Hillsboro, N. C.
Cross Cotton Mills

Dacotah Cotton Mills
Dan River Mills
Denison Cotton Mill Co.
Dover Mills
Drayton Mills
Dunean Plant (J. P. Stevens & Co.)

Equinox Mills
Erlanger Mills
Erwin Mills
Esther Yarn Mills

Fieldcrest Mills
Firestone Textiles

Glenwood Mills
Globe Mills
Graniteville Co. at Augusta, Ga. and Graniteville, S. C.
Greenwood Mills
Groves Thread Co.
Guadalupe Valley Cotton Mills

Harriet Cotton Mills
Hart Cotton Mills
Hartsville Cotton Mills
Henderson Cotton Mills
Highland Park Mfg. Co. at Charlotte, N. C. and Rock Hill, S. C.
Holt-Williamson Mfg. Co.
Houston Textile Co.
Howell Mfg. Co.

Industrial Plant (J. P. Stevens & Co.)

Jackson Mills
Johnston Mfg. Co.
Judson Mills

The Kendall Co.
Klopman Mills, Inc., Modena Plant
Klopman Mills, Inc., Steele & Cordova Plants

Laurens Mill
Leward Cotton Mill
Lily Mills Co.
Limestone Mfg. Co.
Linn Cotton Mills
Lyman Mills

Marion Mfg. Co.
Mayfair Mills
Micolas Cotton Mills
Mission Valley Mills, Inc.
Mooresville Mills
Morehead Cotton Mills

Newberry Mills

Opp Cotton Mills
Orr Mills

Pacolet Mfg. Co. No. 4
Parkdale Mills
Peerless Spinning Corporation
Pepperell Mfg. Co.
Pickens Mill

Ragan Plant (J. P. Stevens & Co.)
Randleman Plant (J. P. Stevens & Co.)
The Randolph Mills
Reeves Brothers
Republic Plant No. 3 (J. P. Stevens & Co.)
Rex Mills
D. E. Rhyne Mills, Inc.
Riegel Textile Corporation
Roanoke Mills Co.
Rowan Cotton Mills
Rudisill Spinning Mill

Seminole Mill
Shuford Mills—Alred Mill
A. M. Smyre Mfg. Co.
South Carolina Cotton Mills
Spartan Mills
Spray Cotton Mills
The Springs Cotton Mills
Standard-Coosa-Thatcher Co.
Startex Mills
Superior Yarn Mills

Texas Textile Mills
Textiles Incorporated
Trenton Cotton Mills

Utica-Mohawk Plant (J. P. Stevens & Co.)

Virginia Mills

Washington Mills Co.
Whitmire Plant (J. P. Stevens & Co.)
Williamston Cotton Mills
Woodside Mills

Ask ANY Of These Mills About Their Experience With This Clothing

LANDIS, INC.

GASTONIA, NORTH CAROLINA

SOUTHERN AGENT

N. C., S. C. and VA.
V. Peter Loftis, Jr.
2642 Armstrong Circle, Gastonia, N. C.

S. T. A. Members Discuss Carding, Spinning Practices

One of the features of the Fall meeting of the Eastern Carolina Division of the Southern Textile Association was a panel discussion on current trends in carding and spinning. The meeting was held November 15 at the School of Textiles, North Carolina State College, Raleigh.

Question: What has been your experience with the new long-life rings with regard to breaking-in period? Ends-down? Traveler life for regular traveler and improved traveler?

Answer: We have used the Kluttz ring. We run a 2½" ring on 9s warp. This is experimental. They told us to put them on there and run them. Just give them hell. So that's what we did. We changed travelers on these rings after 30 minutes the first time and then we made three separate changes at four hours. Then we went to a 32-hour change and then a 48-hour change. Then we turned them loose. We ran some travelers 1,260 hours; some 1,560 hours; and some 1,848 hours. We had a lot of travelers to break off and fly off but we had some that were still running after 1,848 hours.

Question: What was your spindle speed?

Answer: We were doing around 7,800 r.p.m.

Question: What was your traveler speed?

Answer: Around 5,000 r.p.m.

Question: What was your yarn count?

Answer: 9s.

Statement: A tremendous amount of research has gone into what may be one of the major causes of holding the spindle speed down. This is the traveler and rings. Without mentioning brand names, a number of companies have done this research and the result is that there are several rings on the market now that take practically no breaking in, as far as changing travelers is concerned. Breaking in is done in a quick cycle. I think we're getting into an era of speed that we never knew before. Before long it will a common thing to get 7-8,000 feet per minute where normally we couldn't expect to get over a mile a minute.

Statement: We have the Kluttz ring, Mirror-Gold finish rings and the Whitinsville rings. Normally, we were running 22s and 32s yarn. We would run them an hour and change travelers and then run 24 hours and change again. Then we put them on a week's cycle and run them that way for maybe eight or ten weeks. Then we would go to two-week cycle, that is with a regular traveler. With the improved traveler we have gone as high as four weeks and we hope to go to this four-week cycle regularly. Right now we are on a two-week cycle, on warp yarns.

Question: It that with the regular traveler?

Answer: No, that is with the improved traveler.

Question: How about traveler loading?

Answer: We find that loading depends on the style of traveler you use. We use a half-round traveler. The narrower your traveler the less loading you get.

Question: Do you have to blow off your spinning frames?

Answer: We blow them off once a week.

Question: Well, once a week comes between the traveler changing cycle. Doesn't that cause loading?

Answer: Well, we have some loading after blowing off. We have to pick the lint out on Monday morning. We blow off on the week-end. The spinners have a rough time for about an hour after the frames have been blown off.

Question: What is your ends-down per thousand spindle hours?

Answer: Ours has been varying lately. They have been as low as 15 and as high as 45. Right now it has struck a happy medium of about 25.

Question: What is your experience with new and improved travelers? How long do you run them on different yarn numbers?

Answer: We have had four-week runs on our improved travelers and have gotten very good results.

Question: When you step up the spindle speed, do you cut the circle of the traveler?

Answer: You have to correct the circle of the traveler to suit the size of the yarn you spin. That's one reason they have to make so many different styles of travelers.

Question: What has been your experience with large package roving in regard to drafting, creeling, ends-down, waste and transporting it?

Answer: We run a 12x7 package on a 2½" gauge frame. you can't do that with a conventional creel. You have to have open creels and bobbin holders. Our creels have four lines over two.

Question: How does spinning ends-down compare on large package roving as against small package, say 10x5?

Answer: I don't know how to compare that because we are putting large cans on cards, putting in new drawing and putting in new roving. There is not much to compare. In changing the whole thing over, the end breaks have been reduced considerably.

Question: Do you mean end breaks on the spinning?

Answer: Large package roving definitely takes more twist in the roving, otherwise you have more break-backs

Superior Performance to match its name!

Years in the development and testing state . . . months in actual use by large mills under every conceivable operating condition—the new CARTER "Supreme" traveler is now ready.

The secret—a gleaming, satin-smooth, *plated* finish —increases traveler life over 1,000%, in some cases. One large mill, changing travelers every 12 hours, now runs the "Supreme" *a minimum of four weeks!* It also completely solves the troublesome rust problem, and permits maximum control of neps.

You get longer, smoother running with far less down time . . . you save labor costs with fewer traveler changes . . . you get improved yarn quality and strength when you specify CARTER "Supreme" —a superior traveler in every sense of the word.

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Carter
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in the spinning room. We have not found that this affects the drafting on spinning.

Question: Do you change your break draft?

Answer: No.

Question: Is anyone using block creeling?

(No experience)

Question: In your opinion what is the trend in spinning regarding spinners, creelers, cleaners and waste control?

Answer: I think that soon spinners will be doing nothing but spinning because these roving packages are getting so large, especially in synthetic mills where they put more than 100 ounces to the bobbin. Eventually you may have to put men in the spinning alleys to help the women spinners do the creeling.

Answer: As we move to a suspension type anti-friction top and botton roll there isn't the amount of cleaning to do that we use to have. Therefore, I think that we are definitely going away from the spinner doing anything but spinning.

Answer: We are building a package on a sample frame now that runs 200 hours in the creel on 24s yarn. The spinner can't cover the entire spinning room and creel too. So I think we are soon going to see spinners doing nothing but spinning.

Question: Has anyone done away entirely with spinners?

Answer: We're working on that now.

The following is a transcript of a panel discussion on carding and spinning at the Fall meeting of the Piedmont Division of the Southern Textile Association. The meeting was held December 6 at Charlotte, with Highland Park Mfg. Co. acting as host.

Moderator: The floor is open for any question on carding and spinning.

Question: How much cleaning is left for spinners to do in mills which are equipped with octopus cleaners?

Answer: Our spinners have about the same amount of cleaning to do. The octopus cleaner doesn't decrease it too much. The frames don't get as dirty but the spinners have to cover the same space.

Question: In general, what cleaning do your spinners have to do?

Answer: They have to wipe the backs, creel boards, general cleaning.

Question: Do you have just one line of revolving top clearers or open creels?

Answer: We do not have either of these.

Question: Do you cut down on your roller picking or running out the thread guides?

Answer: Well, that depends on your drafting system. If you have anti-friction top rolls and so forth, you can cut your cleaning about 6%.

Question: Does anyone have anti-friction top rolls and octopus cleaners?

Answer: We have. We have cut down picking rolls from every other day to every fifth day.

Question: Does anyone use block creeling with large roving package?

Answer: We are in the experimental stage with block creeling but don't have a large package.

Question: What size package do you use?

Answer: 19 ounce. We double creel.

Question: Who creels? The spinner? Or do you have some special help?

Answer: We are using teams of creelers. We are thinking of putting them on incentives. This is to do away with the spinners. That's the money saver in block creeling. We use a yardage counter on our J-3 roving frame and are managing to put the correct yardage on the roving bobbin. We're running more waste than we like to have. We are allowed 32′ of waste on random creeling and now we're coming out with something like 46′.

Question: Do you piece up ends?

Answer: No, we do not piece up ends which come down. This doubles our Pneumafil waste. That figure is pretty well pinned down. Our ends-down run between 8 and 11 per thousand spindle hours. On a 60-frame block that amounts to about $17 more per week in Pneumafil waste. Not piecing up between doffs also increases doffer costs because the doffers have more ends to piece up than normal. Our main interest is to increase quality.

Question: What yarn counts do you run?

Answer: From 13s to 41s going into seersucker.

Question: How long does a doff run on these frames?

Answer: From an hour and 50 minutes to about three hours, depending on the counts.

Question: How many ends do the doffers have to piece up when doffing?

Answer: On a two-hour doff it amounts to about five ends. It helps our quality because every time a spinner pieces up it makes a slub. Now, on some fabrics this is not good, this is especially true on oxford greige cloth.

Answer: That's the reason so many mills have gone to rewound filling.

Statement: We've been looking into block creeling and have done some experimenting. We use single creel, 1.00 H.R., with a 12x6½ package weighing 70 ounces. One of our problems is having the bobbins run out together. We're doing a little experimenting with creeling one line (out of six) in the creel at a time. This is on a 360-spindle frame which means that we'll be creeling 60 bobbins at a time. That way we can have creelers and spinners. The spinners keep the ends up and do what cleaning is necessary.

Question: You have a special crew for creeling?

Answer: In our experiments, yes. When you start handling 70 ounces plus the weight of the bobbin, that's five pounds, which is getting pretty heavy for short women spinners to handle.

Question: Is anybody running filling wind on spinning for Barber-Colman spoolers?

Answer: We are.

Question: Are you having any sluffing or kinking?

Answer: Not on the spooler.

Question: What counts are you running?

Answer: 43s on 9⅜″ paper tubes.

Answer: We're running 26s and we find that when we get coarser than 30s we have sluffing.

Question: How fast are you running your spooler?

An important guide to spinning and weaving Arnel

With the tremendous success of Arnel fabrics, there is great demand for technical information. Celanese bulletins TD-13A and 14A give all facts and procedures. Here are some of the important points covered.

1. Arnel triacetate staple can be spun readily on the cotton system.

2. Arnel staple blends well with many fibers such as cotton, rayon, nylon, polyesters and acrylics to obtain yarns with varying degrees of strength and a wide choice of characteristics.

3. Special opening, conditioning, precautions, or techniques to handle Arnel staple are not required. As is true of most man-made fibers, aging in lap form will be beneficial in improving subsequent processing.

4. You can weave Arnel in the same manner as acetate and many other yarns. No significant change in loom adjustments or equipment is necessary.

5. When fabrics of Arnel are designed, be sure to allow for shrinkages and/or stretching, however small. For example, approximately 2% shrinkage for tight spun yarn twills and high sley filament fabrics should be allowed as much as 6% for open type linen constructions.

6. Arnel filament yarns have slightly different frictional properties from acetate, therefore quilling tensions should be adjusted accordingly.

7. In slashing spun Arnel and blends, similar sizing ingredients as used for spun acetate yarns are recommended.

8. You will find that wet splitting before the first drying can, and overwaxing after the yarn sheet has passed over the last can could be very helpful in slashing spun Arnel and blends.

9. In slashing, you will find that Arnel yarns stretch less than acetate.

For Technical Bulletins TD-13A and 14A write to:
Celanese Corporation of America, Box 1414, Charlotte, N. C.

DISTRICT SALES OFFICES:
180 Madison Ave., New York 16, N. Y.
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EXPORT SALES:
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IN CANADA:
Chemcell Fibres Limited,
1600 Dorchester Street West, Montreal, Quebec.

Celanese® Arnel®

Arnel . . . a Celanese contemporary fiber

Answer: 1,200 y.p.m. We run 12" paper tubes on Gwaltney frames.

Question: Does warp twist cause more sluffing than filling?

Answer: We found that warp twist causes more.

Question: Were you able to get more yarn on the bobbin with filling wind?

Answer: Yes.

Question: How much?

Answer: About 800 yards.

Answer: We get about 20% more yarn on the bobbin using filling wind.

Question: What weight do you get on 9⅜" bobbins?

Answer: I don't remember. We do get greater speeds. Ten turns faster on filling wind than combination and the ends run much better.

Answer: The reason we went to it was because we couldn't get fine yarn piecings on combination wind off on the Barber-Colman spooler. We couldn't run pieces off on 40s with combination wind.

Question: Approximately what relative humidity are you running with vacuum ends-down collection and higher drafts?

Answer: We went to a higher relative humidity (55-58%) to eliminate top roll laps. By going too low in humidity we build up a static condition which causes top roll laps.

Question: Is that on cotton?

Answer: Yes.

Answer: We found that the relative humidity in the spinning room doesn't have too much to do with the top roll lap ups.

Answer: We find that what works today won't work tomorrow.

Question: What is the best way to blend rayon nubs with cotton?

Answer: In blending rayon and rayon nubs we use three feeder hoppers in tandem. This breaks up the nubs. They don't come through in chunks.

Answer: You can't blend the nubs with cotton before it goes through the cleaning line because the cleaners take the nubs right back out.

Question: Does anyone have high speed drawing?

Answer: We have Saco-Lowell Versamatic which we run 250 feet per minute. We've gotten excellent results from it. This is on combed cotton.

Answer: We run the Whitin Model M 300 feet per minute and are getting good results.

Question: How about your variation?

Answer: Variation on Brush uniformity tester runs 12-13%.

Question: Were you able to tell any difference in the running of your spinning after you put in the new drawing?

Answer: We were. We put in new drawing and roving both.

Question: If you had the money to buy new roving or new drawing and your present drawing and roving were of the same vintage, which would you buy?

Answer: I'd buy drawing because new roving wouldn't do me any good without good drawing. New roving wouldn't be any good to me without spending money for spinning creels and drafting elements.

Question: Who has had experience with plated travelers on spinning and how much more life do you get out of them?

Answer: We've had experience with them but we'd rather not comment on them at this time.

Moderator: Maybe the traveler people can help us.

Answer: We're in the same position. I've been privileged to run a number of tests not over a period of hours but over a period of days. We've had some fantastic results in hours run. I was in a synthetic mill the other day that runs a rather difficult blend. They have a 2½" ring, 16s yarn, 7,500 r.p.m. on spindle and plated travelers ran ten weeks, 130 hours per week. In other places they did not find that plated travelers run long enough to change to them. There are quite a few conditions which keep travelers from running so long. These conditions are your own and are found in your own spinning rooms.

Question: What particular conditions would you have to have to get this long traveler life?

Answer: Well, the ring condition is one of the major things. A smooth surface on the ring will lengthen the life of any traveler, because in rough rings you have more chattering. Another condition would be an out of plumb spindle or guide out of plumb which decreases the life of the traveler.

Question: Does anyone here have top drive, anti-friction spindles?

Answer: We have them and find that they do away with high and low bobbins and cut your waste almost down to nothing. The doffers don't have to jam the bobbins down on the spindle and we find that it reduces the time to doff a frame. There is also money to be saved in the weave room because the battery hands don't have any tails to pull off. There are so many advantages that I can't think of any disadvantages.

Answer: We have found that we can increase spindle speed from 10,000 to 11,000 r.p.m. You have to be careful about putting the bobbin on too hard because they are hard to get off if you do. This irritates the doffers. We've been running them about two years and we think they're doing all right.

Question: Do you have any sticking of the bobbin on the spindle at any particular time of the year or when starting up after a week-end?

Answer: No, only if you put them on too hard.

Question: Do you have conforming or non-conforming fit?

Answer: We have a conforming fit on ours. About 1/16" conforming fit.

Question: Have you tried the others?

Answer: Yes, we had high bobbins. They gave us a fit and we had to go off of them. The bobbins wouldn't stay on the spindle.

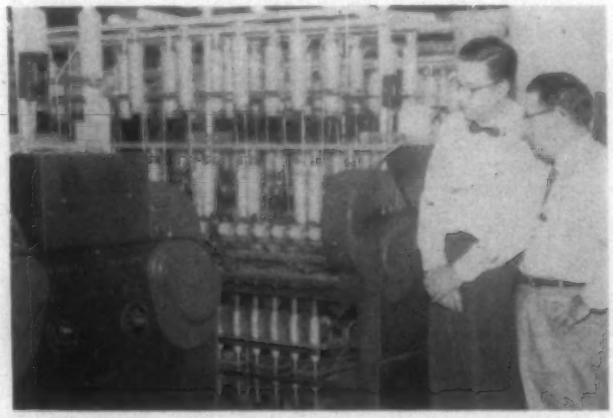
Question: Do you wrap the yarn around the spindle?

Answer: No.

Eli Whitney's cotton gin, the first machine to point the way for American technology, was worthless to its inventor from the standpoint of financial return. Whitney patented his gin in 1794 when the U. S. Patent Office was only four years old. It was too valuable an invention to wait on a law. Gins designed after Whitney's were built in numerous workshops of Southern plantations before the young inventor could carry out his intention of establishing a manufactory in New Haven, Conn.

Want To Reduce Spinning Labor 35%? Here's How Erlanger Mills Did It

ERLANGER Mills, Lexington, N. C., has taken steps necessary to modernize part of its spinning equipment to: (1) bring quality up to the standard of the rest of the mill; (2) improve the running of the stock; and (3) increase drafts. In terms of spinning room labor reduction, the modernization has meant much to the mill. Prior to modernization the labor complement necessary to run the 45 frames—with an average count of 15s on viscose, acetate, Orlon, blends and other fibers—was 40, on a three-shift basis. Fourteen jobs were eliminated by the modernization and the room is now run by 26 employees on three shifts.



Erlanger Mills' modernized spinning makes better yarn, reduces cost of spinning, increases pounds produced per square foot of floor area, and increases the efficiency of previous and subsequent operations.

In addition, increased drafts made possible by the Whitin Machine Co.'s Super Draft changeovers installed on the frames, have allowed increased efficiency in the card room. The mill's yarn was spun from an average of 1.25 hank roving and is now spun run from 0.58 hank roving. The yarn has improved uniformity and runs better. Despite the fact that there are a great many more spindles per spinner on the 10,224 spindles involved in the changeover, spinners jobs are easier to run than previously.

The modernized frames were equipped with casablancas drafting elements before being changed to Super Draft. The changeover was supplied with Climax rolls. The frames also equipped with Parks-Cramer Spin-Sa-Vac ends-down collection units, Parks-Cramer open creels and Parks-Cramer frame cleaners. The frames have anti-friction spindles, 8½-inch traverse and 2¼-inch rings. Erlanger's 10x5 roving frames deliver a 36-ounce package. Lowered roving frame draft, allowed by higher spinning frame drafts, increases the roving frame front roll speed and, thereby, raises production.

Erlanger has installed the "block creeling" method of spinning on its newly modernized frames. In the system, spinners do nothing but put ends up. Creeler hands are used to fill entire creels when they run out. Two creeler hands can creel and start up a frame in approximately 28 minutes. The creels of two-pound roving bobbins run approximately 28 hours. The creeler hands average slightly less than 13 creels per shift. Since this requires only a little more than 75% of an eight-hour shift, creeler hands also do what manual cleaning is necessary on the frames. Two spinners keep up the ends on all 45 frames with each one responsible for 5,112 spindles. This is done with an average count of 15s.

Block creeling eliminates ends-down from roving run-out as well as the necessity for laying-up roving or the use of roving buggies by the spinners. The labor complement necessary to run the frames, excluding fixers, doffers and sweepers, has been reduced from 25 to 13 by use of block creeling with the modernized frames. Two spinners and two creelers are used to run the frames on each shift. A roll picker is also used on the first shift.

Block creeling is not possible without having predetermined yardage knockoffs on roving frames. Without these devices roving bobbins from various doffs in the same spinning frame creel would not run out at the same time. Roving waste would be made in excessive amounts and the economy of the spinning method would be severely impaired.

Erlanger's spinning frame and spinning method modernization has resulted in a 48% reduction in the number of spinners and creelers and a 35% reduction in the over-all spinning room labor complement.

With the completion of the installation of Whitin Super Draft changeovers, Erlanger Mills put this spinning room on block creeling. In the system spinners do nothing but put ends up. Two creeler hands can creel and start up a frame in about 28 minutes.

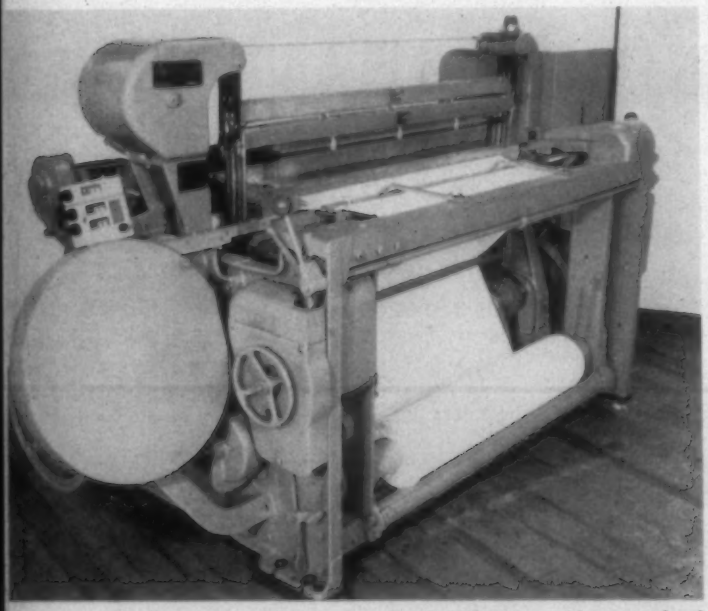
The Draper Shuttleless Loom

This is the first publishable data made available by Draper Corp. on its long awaited shuttleless loom. The information was contained in a paper presented last month before the Textile Engineering Division of The American Society of Mechanical Engineers by Frederick M. FitzGerald, Draper's director of research.

THE present Draper shuttleless loom is of the flat or broad loom type, producing a single sheet of fabric in widths ranging from 36 to 64 inches at speeds of approximately 250 p.p.m. in the narrower widths and approximately 200 p.p.m. in the wider goods. Usable reed space is five inches greater than nominal size of loom. Maximum cloth width can be two inches greater than nominal size.

Fabrics woven to date range from print cloths through sheetings, drills, twills, sateens, denims, corduroys, Canton flannels, etc.—all spun yarns in cottons and blends. Continuous filament synthetics have not as yet been attempted.

The loom is low in silhouette, without overhead arches and without handrail over the reed, which makes for easier weaver's operation. Its over-all floor space is somewhat less than a Draper X-2 Model of corresponding size. Length is slightly more than a corresponding X-2 and depth front-to-back is seven to nine inches less than a corresponding X-2, depending on warp beam diameters.



The Draper shuttleless loom is low in silhouette, without overhead arches and without a handrail over the reed. Its over-all floor space is somewhat less; length is slightly more; and depth, front-to-back (depending on warp beam diameters) is less than a Draper X-2 Model of corresponding size.

The principal difference between this loom and the conventional shuttle loom is the method used in placing the filling. Filling supply packages are in the form of cones, preferably of eight to nine pounds in weight, mounted at the right-hand end of the machine so that two cones can be creeled together to effect a continuous supply.

Filling insertion is accomplished by two sets of mechanisms: (1) the filling control mechanism and (2) right-hand and left-hand filling carriers. The filling control mechanism is always located on the right-hand side of the loom. This mechanism positions, then measures and cuts the yarn so that the correct length of filling can be drawn into the warp shed under tension by the filling carriers.

Carriers

The right-hand and left-hand carriers which place the pick in the shed are mounted on the ends of flexible steel tapes. Carriers work in and out of the shed from opposite sides of the loom in a modification of the old Rapier principle.

In the Draper loom each carrier tape is fastened to an oscillating aluminum wheel. As the aluminum wheels turn, the carriers enter the open shed (one from each side) and mate in the center. The right-hand carrier which has picked up the filling from the filling control, transfers it to the left-hand carrier near the center of the goods. As the tapes withdraw from the shed, the left-hand filling carrier pulls the loose end of filling, which has been correctly measured by the timing of the filling control cams, across the shed.

Filling is laid in cycles of two picks. The two picks resemble a hairpin with the open end at the left-hand side and the bend at the right-hand side. This produces a fabric with a smooth or uniform selvage at the right-hand side and an unfinished selvage at the left-hand side. Beat-up of the pick is by means of a cam operated, all-metal reed mounted on a light metal lay beam which is supported by light metal swords. No crank shaft is used. Lay operating cams are designed with a dwell of nearly one-half the cycle to allow the entry into and withdrawal from the shed of the filling carriers.

Harness Motion

The loom has a capacity of six cam operated harnesses. No dobby or jacquard applications have been developed at this time. The harness motion features several departures from cam harness motions commonly used on shuttle looms. Underneath treadles are pivoted at the front of the loom,

allowing for use of identical cams for all harnesses in a set. This does not apply in the case of a special pattern effect requiring odd shaped cams for a weave such as corduroy. For all shades, harness cams are mounted on a separate auxiliary shaft which is driven from the main shaft through a completely enclosed train of reduction gears.

Harnesses are kept in contact with the cams by completely enclosed clock-type springs mounted on the left-hand loomside. Connections from the springs to the harness frames are attached to the ends of the frames by means of adjustable hooks. Connections from the bottom of harnesses to treadles are rigid but adjustable rods. Adjustment of harness spring tension is by means of a worm and worm wheel operated from outside the housing. A tension indicator and dial are mounted on the outside of the housing so that the load on harnesses and cams is easily read.

The clamping member which holds the reed in place on the lay also acts as a gage point for locating the bottom warp sheet in the loom. This is an important feature in the adjustment of the loom since the bottom shed line must always be correctly set in relation to the tape travel.

Take-Up

The cloth take-up motion is of the high roll type. Motion is imparted to the take-up roll from a pick wheel, driven from a take-up driving crank through pawls. Movement of the pick wheel is transmitted to the take-up roll through a completely enclosed train of reduction gears. The picks per inch in the cloth are controlled by the number of teeth in the pick wheel.

Four different gearing combinations are possible by simply changing positions of gears inside the case. Range of picks per inch in the cloth is from 4 to 292. Incorporated in the gear case is a let-back spring that provides the torque required for letting back for a filling stop or when both take-up and let-back pawls are disengaged by a foot actuated release rod.

Woven cloth is wound on a wooden or paper or similar roll which is friction driven by metallized wind-up rolls which, in turn, are driven by the take-up roll through a chain and gear drive. Space is provided for a roll of cloth of 24 inches maximum diameter. A roll of this diameter will hold 1,300 yards of 80x80 print cloth, with a possible time between doffs of approximately 315 hours; 1,100 yards of 64x64 sheeting, with a doffing time of over 200 hours; and approximately 350 yards of Canton flannel with 38 hours between doffs.

The roll of cloth is easily removed from the loom without cranks or special equipment and without stopping the loom. The wind-up system is equipped with a knock-off switch which is set to stop the loom when the roll of cloth reaches its maximum diameter.

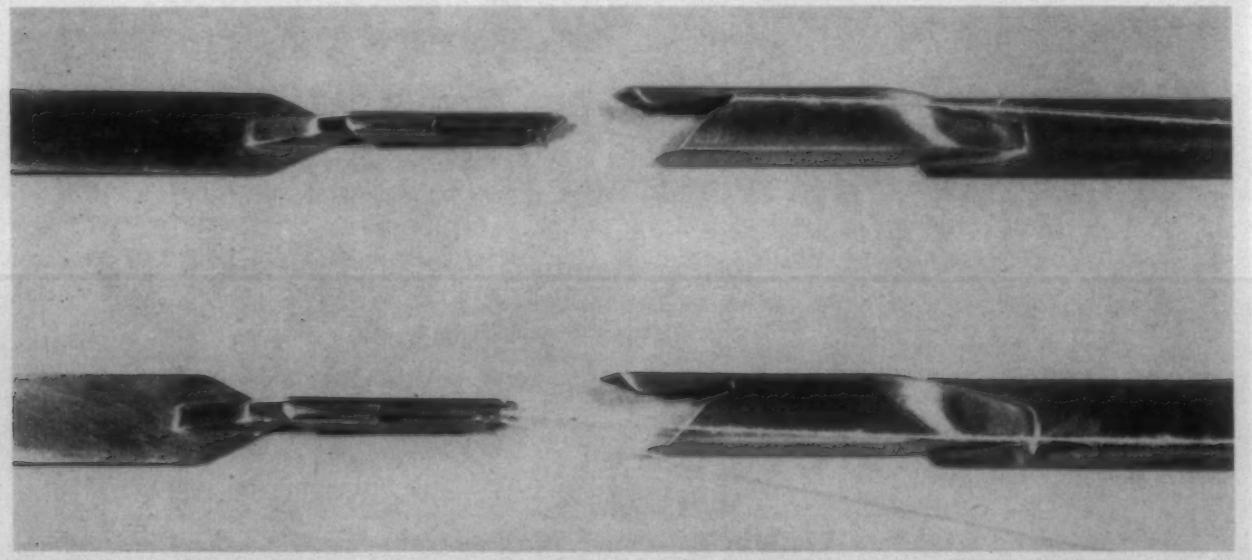
Filling Stop Motion

The filling stop motion is of the mechanical center fork type and its function is to detect a faulty pick and stop the loom. Detector prongs are mounted at the center of the lay beam in bearings requiring no lubrication. Knock-off parts are mounted at the left-hand end of the lay away from the cloth for accessibility. These knock-off parts can be set: (1) to stop the loom on the first broken pick; and (2) to miss the first broken pick and stop on the second successive broken pick.

The loom is driven by a 1 h.p. clutch-brake motor (the Diehl Power Transmitter) flange mounted at the base of the right-hand loomside. This motor is well known in the trade and the model used on the shuttleless loom is identical to those used on Draper shuttle looms except for the mounting. The greatest load we have measured to date is well within the capacity of the motor.

Changes in loom speed are easily made by exchanging pinions on the motor shaft. A 23-tooth pinion runs the loom at 225 p.p.m. A 24-tooth pinion at 235 p.p.m. and so on.

The constant tension let-off allows no appreciable change average warp tension from a full to an empty beam. Once initial settings are made, no adjustments should be required to maintain proper warp tension. When tension



The right-hand and left-hand carriers which place the pick in the shed are mounted on the ends of flexible steel tapes. Carriers, fastened to an oscillating aluminum wheel, work in and out of the shed from opposite sides of the loom.

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builds up in the warp yarn, the whip roll is forced down, overcoming the preset torque in the warp tension springs.

Through connections, the gearing which turns the warp beam is operated from the let-off driving cam. This let-off is based on the Bartlett idea. Gearing is enclosed. Pawls and ratchets are eliminated. Warp beams from 26 to 32 inches in diameter can be used by simply moving the bearing along the shelf provided on loomside.

Variation in warp tension, when desired, is achieved by manually adjusting the preset in warp tension springs by means of the adjusting worm. Warp tension springs are of the clock spring type, fully enclosed. Several combinations of drag rolls are possible by simply resetting the brackets provided.

Left-Hand Selvage

As mentioned earlier, this loom produces a conventional selvage on the right-hand side of the goods. A presentable left-hand selvage is made possible by the selvage binder mechanism and the separate selvage yarn. The binder ends, one on each spool mounted on a revolving disc, lock the filling end with a motion completely independent of the loom harness motion. For every revolution of the binder disc, the two ends of binder yarn cross each other twice. This produces a binder cord of the two outside warp ends—in effect, a full turn leno—and can be set to bind every filling pick or every two picks. The edge left by the filling ends projecting beyond the binder cord can be sheared or trimmed in a number of ways to produce a relatively smooth edge. These ends can be held to ⅜-inch in the loom. The resulting waste is no greater than the waste from feeler bunches on bobbins.

Lubrication

Lubrication, which is always a problem on looms, is handled in various ways. The loom is constructed with many of the major mechanisms completely enclosed. Sealed anti-friction bearings are used in some spots. Impregnated wood bushings and rubber torsional bushings, requiring no lubrication, are used in several critical areas. Other bearings, gears and cams can be lubricated by hand grease gun, one-shot pump system or fully automatic systems with 50 or more looms piped to a central pump controlled by an electric timer.

All mechanisms on the machine are interconnected, with positively controlled timing of filling insertion, filling cutting, harness crossing, etc. These mechanisms are all timed to the handwheel of the machine which is graduated in degrees and provided with a marker.

General

It is expected that this loom, as compared to a shuttle loom producing the same type of fabric, will provide the mill with:

(1) Increased production speeds
(2) Economies in fixing and maintenance costs
(3) Elimination of battery hands
(4) Reduction of supply costs
(5) Easier operation by weaver and fixer
(6) Other material handling savings because of larger filling, cloth and warp capacity
(7) Reduction in noise level.

The LOOMFIXER And His Job

By WILMER WESTBROOK

THE placement of the loom frame is a detail that should be carefully planned when new looms are to be installed or the present looms are to be relocated. Unless the building has been expressly constructed for the particular lot of looms it will often be found that columns, pipes, posts and walls will interfere with the layout. It is better to have an irregular layout than to waste floor space just to gain uniformity.

The weaver's aisle should be wide enough for normal walking but not so wide that it becomes necessary to sidestep from a loom to the one facing it. A cross aisle between every two looms makes it convenient for the weaver to reach the back of the loom without excessive walking.

Extra-wide looms and those equipped with dobbies need a cross aisle at every loom. There should be at least two inches of space between lay-ends where there is no cross aisle—four inches is better. Adequate space will permit the loomfixer to work on battery, box or picker without stopping the adjoining loom.

Easy Movement

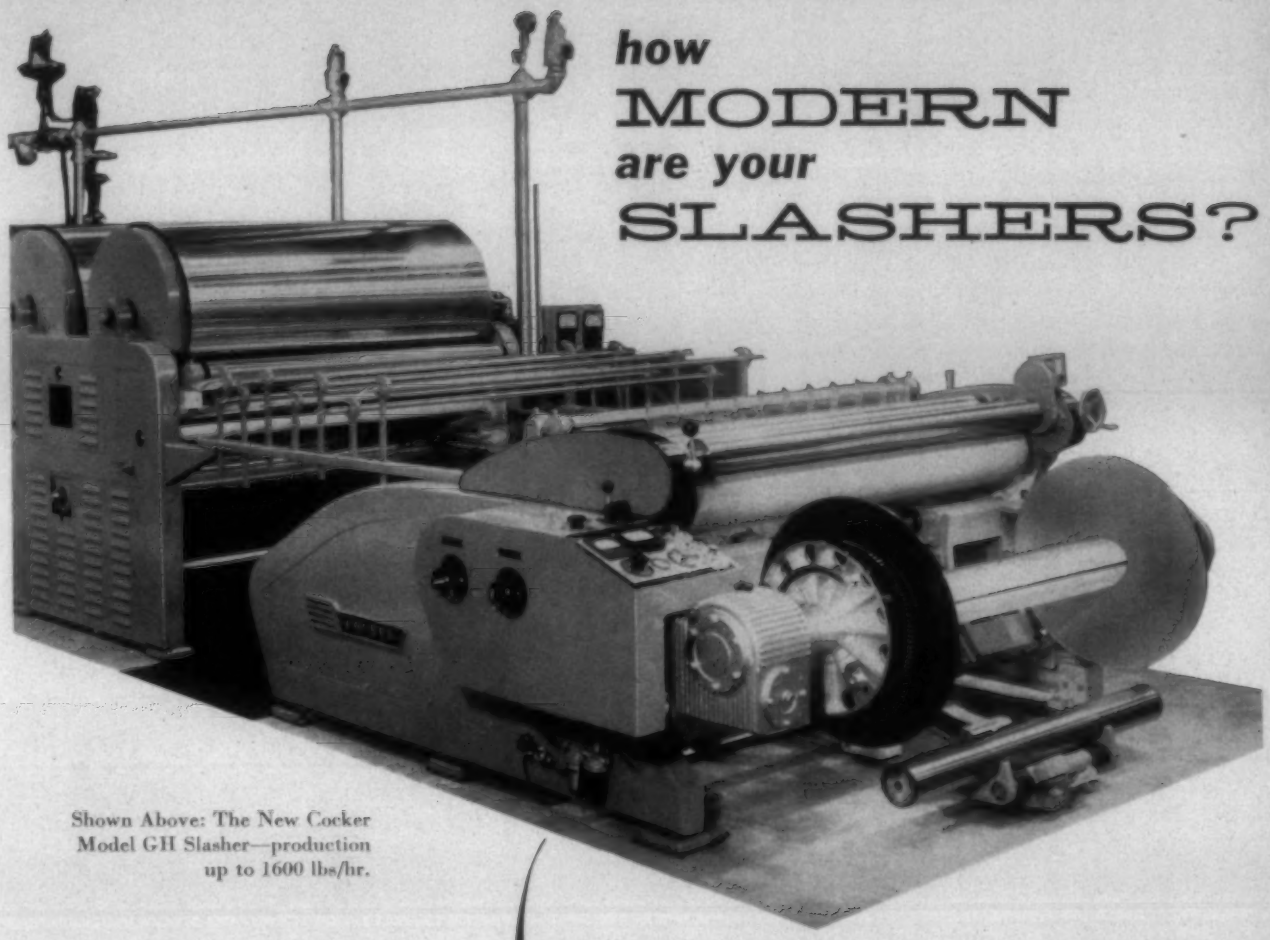
The warp aisle should be wide enough for easy movement of boxes, beams, trucks and warp tying machines. The diameter of the warp yarn beam head will dictate the width of warp aisle unless overhead beam handling equipment is used. It is just as important to not waste floor space as it is to have adequate work space around each loom. A few inches of unused space at each one will amount to enough space for several more looms in a room and will also cause the weaver to take many extra steps in the course of each working day.

Most loom frames are attached to the floor with cement

Part Two

This installment of our new loomfixing series is concerned with the loom frame and says that when properly assembled, aligned and leveled, the frame requires little attention. Careless loomfixing or incorrect setting of parts can often cause a broken loomside and require a major overhaul.

how MODERN are your SLASHERS?



Shown Above: The New Cocker Model GH Slasher—production up to 1600 lbs/hr.

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and vibration absorbing pads under each foot. A carpenter's level should be used to get the frame exactly level as the pads are inserted. Places to use the level are on the breast beam, the loom horns and the front and back girts. Don't use the take-up roll, stop motion or other adjustable part for a leveling or aligning point. Double pads, split pads or wood shims can be used as needed to level the frame.

A handy tool to lift the loom so that pads can be put under the feet is a one-ton truck jack and a lifting bracket made of flat iron bent in the shape of a square S. The flat iron should be about ⅜-inch thick and about three inches wide. It should be bent so that one arm rests on top of the jack in its lowest position and the lower arm fits under the front or back loom girt.

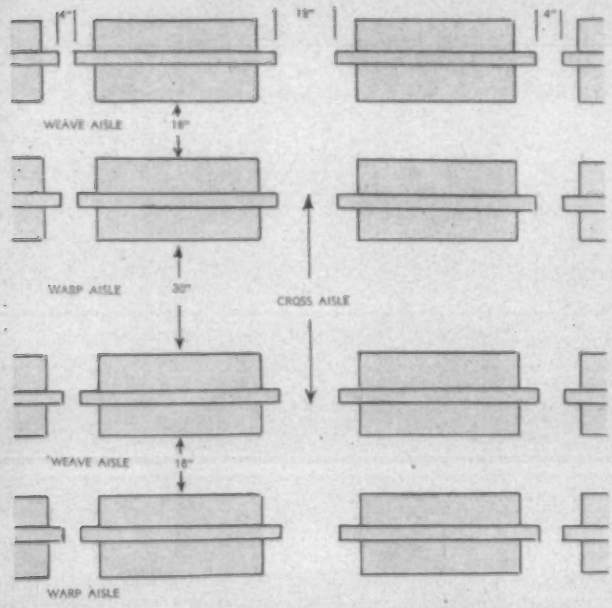

Fig. 1—Typical layout for 40-inch looms with 26-inch diameter beam heads.

Insert Pads

To insert pads under the loom feet, have the loom in exact position and drive a 20-penny nail about halfway down in the floor flush against each back foot to keep the loom from shifting when the front is raised. If the floor is made of concrete, nails cannot be used and extra care must be taken to see that the feet do not slip. Place the jack and lifting bracket in place at the center of the front girt and raise the front feet about three inches above the floor.

Put the pads in place under the front feet, lower the frame and remove the jack and bracket. Pull the nails out of the floor at the back feet and use them in the same way at the front feet to keep them from shifting when the back feet are raised. Place the jack and bracket at the center of the back girt and proceed in the same manner as with the front feet. When cement is used to bond the pads to the feet and to the floor, the loom should not be started for several hours.

Floors will sag and pads will wear, so it is a good idea to check loom frames periodically with a level. A very slight slope of the lay can make a big difference in the way the shuttle picks from one box to the other. In addition to

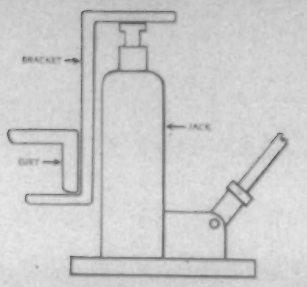

Fig. 2—Jack and bracket lift loom feet easily for insertion of mounting pads.

bolts, parts of the loom frame are held in place by lugs and dowel pins. All nuts should be kept tight because vibration will cause wear to loosen connections and the frame will become warped.

Except for periodic checks to see that connections are tight and that it is level, the loom frame requires very little attention. But occasionally a loom side will break and a major repair job becomes necessary. Temporary repairs and patches are sometimes used but these jobs seldom prove to be satisfactory. If the break occurs at a point where there is little strain or wear it can sometimes be welded successfully. Except in the case of defective castings, most breaks occur at critical places such as at a bearing, a frog or one of the loom horns. It is hard to use a weld or patch at these places.

Gear Puller

When it is necessary to remove a loom side, all the parts attached to it should be removed with care so they can be replaced. Remove gears and wheels with a puller if possible. If it is necessary to drive gears or wheels with a bar and hammer, place the bar against the hub and near the shaft. Never strike a gear or wheel on the spokes or rim while driving it on or off the shaft. Don't let the bar or hammer hit and mar the shaft, key or keyway. Examine all bolts as they are removed and discard any that have defective heads or threads. Place the nuts and washers on all bolts that are to be re-used and put them in a convenient place. Bolts scattered carelessly on the floor are a safety hazard, they will often become lost, or the sweeper may put them in the waste box.

Clean and examine all parts as they are removed. Some general overhauling can often be done when a loom is taken down to replace a loom side. It is a good time to replace worn cam shafts or rocker shafts. Any badly worn or broken parts should be discarded and new ones used

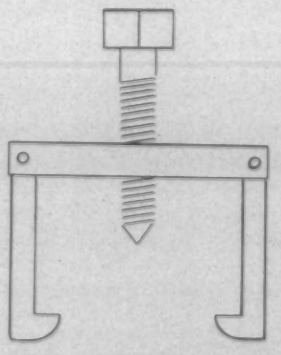

Fig. 3—Pullers to fit all loom gears and wheels can be made in the mill shop.

instead. This kind of overhauling is economical and will save a lot of work later.

Use a support to hold the cam shaft, crank shaft and arch when the loom side is removed. A support made of a board with notches sawed in it will prevent breakage of parts and will hold them in place for easy reassembly.

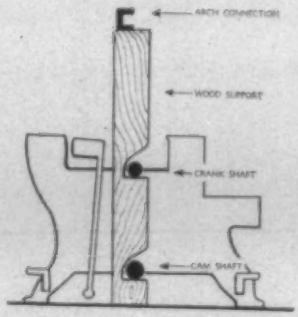

Fig. 4—Board with notches sawed in it will support shafts and arch.

When the new loom side is put in it will be necessary to realign the cam shafts, crank shaft and rocker shaft bearings. The placement of the rocker shaft bearing is very important and two holes must be drilled in the loom side for the dowel pins when the bearing is in place.

If the new loom side is on the battery end of the loom, it is best to wait until all other parts are assembled and then use battery gauges to check clearances before the dowel pin holes are drilled. The front and back girts and the breast beam should fit the new loom side without filing. Be sure the girts are fitted securely between the lugs before the nuts are tightened. The breast beam and motor stand should be attached with dowel pins as well as with bolts. Use good lock washers on all bolts in the loom frame.

Place pads under the feet of the new loom side and shim them if necessary to level the loom. Check settings and clearances of all affected parts such as the transferrer, shuttle feeler, filling feeler and pickers before the loom is started. Other parts of the loom frame seldom need to be replaced. The entire frame should be kept tight, level and as free of strain and vibration as possible. Because of its nature, a loom has many points of sudden stress but the frame is made sturdy enough to withstand the strains of routine operation. It is only when parts become loose—or excessive strain is caused by defective settings—that parts of the frame fail and must be replaced.

S.T.A. Panel Discussion

Question: Who has had experience with the plastic shuttle?

Answer: We've been using plastic shuttles for the past 36 months and we find that they have an average life of 18 months. Our dogwood shuttles had an average life of six months. We have 1,247 looms on plastic shuttles. Our plastic shuttles are easier to box and humidity doesn't affect them as much as it does dogwood. The spring in the plastic shuttle stands up better and the shuttle outlasts the eye. We take off all the power possible. On some looms (wide Draper XL) the pick point must be changed to get enough power off. Nylon line is used to put tension on the filling instead of bristles. We fasten the nylon in the shuttle with round toothpicks.

Question: Who has had experience with synthetic slasher rolls?

Answer: We find that rubber-covered rolls give mighty good results.

Question: Do you get as good a finish on the yarn?

Answer: Yes.

Answer: We use more weighting on rubber rolls. We use a pneumatic loading system.

Answer: We get good service out of synthetic rolls. We buff the rolls every six to eight months. They are much better than blanket-covered squeeze rolls from the cost angle. We have fewer hard size marks. We use the dead-weighting system with from 532 to 700 pounds of weight on the rolls.

Answer: Another advantage to synthetic rolls is that there's no "break-in" period. On the old type, by the time the blanket was broken in and running good, it started to deteriorate.

Answer: The pneumatic weighting system is good because you can run a number of different weights of sets with one size formula. This is made possible by changing the loading pressure.

Answer: We can't run dark colored sets on rubber squeeze rolls. The size doesn't penetrate as well and can be seen on dark, loom-finished goods.

(Note: A show of hands indicated that four of the mills represented at the meeting were currently using synthetic-covered squeeze rolls.)

Question: Who has tried using large packages in the slasher creel?

Answer: We're using 30" Allen beams on our Cocker warper. The beams work very satisfactorily.

A feature of last Fall's meeting of the Eastern Carolina Division of the Southern Textile Association was a discussion on slashing and weaving, a portion of which is abstracted here. The meeting, held at the North Carolina State College School of Textiles on November 15, was attended by some 125 mill men and industry suppliers. Also abstracted in this issue (Page 50) is a discussion from this meeting on current trends in carding and spinning.

Color Mixing

In The Dyehouse And Laboratory

By W. C. DODSON

IT seems to me that, there is one phase of this textile industry which has never been written about simply and clearly, and that phase is the mixing of colors used in dyeing. Maybe I should say the combining of colors rather than the mixing of colors. There is a world of technical data available regarding the detailed preparation and application of specific colors and types of colors, but nowhere have I seen in print the theory back of how and why certain combinations of colors give certain end results. This background phase I shall attempt to give you as clearly as-I can.

WARNING. You can't just skim through this article and get much out of it; furthermore, it will be dull reading, but if you will follow it patiently, I feel confident that you will find it interesting and well worth the time spent. The source of the data is an old note book which I have had since I attended lectures on the subject over 40 years ago at North Carolina State College in Raleigh. Reviewing the faded notes brings back in sharp focus the memory of Professor John E. Halstead, who was head of the dyeing and chemistry department of what was then A. & M. College. Professor Halstead, a Teacher, was a kindly man who could make his lectures simple and interesting even to the group of half-baked kids he was trying so hard to help. All this in a subject which in those days was kept as much of a mystery as possible by the practical mill dyers.

I remember too, that in those days there was not in all America even one manufacturer of dyestuffs.

Now that you have a little of the background for what will follow, lets get on with the matter by considering the history of dyeing and of early dyestuffs.

The Coloring Of Textiles

Dyeing is the art of coloring textiles and other materials in such a manner that colors will not be readily removed by those influences to which they are likely to be subjected (such as light, washing, bleaching, rubbing, milling, etc.). The materials usually dyed are those made from cotton, wool, silk and in recent years various synthetics. Most of these are intended for clothing or decoration. In addition to the fibers may be mentioned straw, fur, leather and paper.

The art of dyeing dates from prehistoric times, and its practice probably began with the first dawn of civilization. Although one cannot trace the successive stages of its development from the beginning, we may suppose they were somewhat similar to those witnessed among certain uncivilized tribes of today.

At first the dyes were mere fugitive stains produced by the juices of fruits, and the decoctions of leaves, flowers, barks and roots. But in the course of time methods were discovered by which, with the aid of certain earths and muds containing aluminum or iron, the stains could be rendered permanent. Then it was that the true art of dyeing began.

There is little doubt that dyeing was, in the early part of its history, a home industry practiced by women of the household, along with the sister arts of spinning and weaving, for the purpose of embellishing materials manufactured for clothing. Historical evidence shows that at a remote period a high state of civilization existed in Persia, Egypt, India and China. And the belief is well founded that the art of dyeing had been practiced in these countries during a succession of ages.

Natural Dyestuffs

Down to the middle of the nineteenth century, however, *natural dyestuffs alone,* with but a few exceptions, were at the command of the dyer. It will be interesting here to consider some of the natural dyestuffs.

Indigo	Blues
(also used at present)	
Madder	Reds
(Alizarine—synthetic equivalent)	
Logwood	Blacks & blackish blues
Fustic	Yellows
Cochineal	Reds
(Cochineal is derived from an insect)	
Limawood	Reds
Camwood	Reds
Barwood	Reds
Saunderswood	Reds
Persian berries	Yellowish Reds
Quercitron bark	Yellow
Turmeric	Fugitive Yellow
Orchil	Maroon
Cutch	Brown
(used extensively during World War I)	
Cudbear	Maroon
Murex (shell fish)	Purple or Rich Blues

About 1834 the chemist Runge noticed that one of the products obtained by distilling coal tar, namedly aniline, gave a bright blue color when chloride of lime was added. No useful coloring matter, however, was obtained from this product, and it was reserved for the English Chemist

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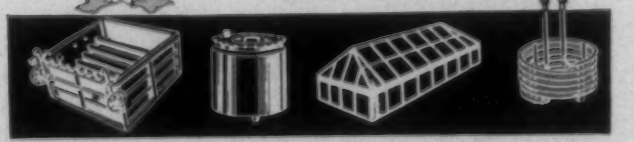

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W. H. Perkin to prepare the first aniline coloring matter worthy to be called a dye. This was Mauve. The discovery of other brilliant aniline dyestuffs followed in rapid succession, and in the course of a few years the dyer was furnished with Magenta, Aniline Blue, Hoffman Violet, Iodine Green and Bismark Brown.

Continued investigation showed that the products of coal tar distillation were most numerous, and that some of these were especially suitable for coloring matter. Such, for example, are Benzene and Napthalene, and Anthracene, from each of which a distinct series of coloring matters is derived. In 1869 Alizarine, the coloring constituent of the madder root, was prepared from Anthracene. This discovery is of the greatest historical interest since it is the first instance of the artificial synthesis of a vegetable dyestuff. Another notable discovery was artificial Indigo (1878).

Since 1856 an ever increasing number of chemists has been busily engaged in investigating the color possibilities of coal tar products. Of these a few typical dyes with their dates of discovery should be mentioned:

Cachou de Laval	1873	Congo red	1884
Eosin	1875	Primuline	1887
Alizarine blue	1877	Rhodamine	1887
Xylidine scarlet	1878	Paranitraniline red	1889
Biebrich scarlet	1879	Alizarine green	1895

At the present the dyer is furnished with an almost embarrassing number of synthetically derived dyestuffs which are capable of producing every shade and tone of color. Many of the colors are fugitives, but a considerable number can be considered permanent in that they withstand many of the influences which tend to weaken or eradicate them. Consequently for almost a generation the natural dyes have been disappearing from the textile market.

During the period of discovery by chemists, mechanical engineers had been actively engaged in devising machines suitable for carrying out, with the minimum of human labor, all the various operations connected with dyeing. This introduction into the dyeing industry of improved machinery has resulted in the production of better work. It has effected great economies and is a most important feature in modern dyeing. So much so, that there is no appreciable production without its use. This is a far cry from conditions existing when synthetic colors first began to reach the market.

General Principles Of Dyeing

This art of dyeing is a branch of applied chemistry in which the dyer is continually making use of chemical and physical principles in order to produce a permanent union between the material to be dyed and the coloring matter applied. If cotton or wool, or other textile matreial, is boiled in water containing finely powdered charcoal or other insoluble colored powder, the material is not dyed, but soiled or stained. This staining is due entirely to the entanglement of the particles by the rough fiber surfaces, and a vigorous rubbing and washing will remove all but mere traces of the color. True dyeing can only result when the dye is presented to the fiber in soluble form. The color, after being absorbed by the material, becomes insoluble under ideal conditions.

There must always be some physical or chemical affinity existing between the fiber and the coloring matter. This depends upon the chemical properties of both. It is well known that the typical fiber—cotton, wool, silk and synthetics—behave very differently toward the solution of any given dyestuff, and that the method of dyeing employed varies with each fiber. As a rule, wool has the greatest natural attraction for coloring matters. Silk generally comes next in ease of dyeing, while cotton takes the last place in natural fibers. These differences may be, to some extent, due to the differences in physical structure of the fibers, but they seem mainly due to their chemical composition.

Color Mixing

So far as I know there are three theories of color mixing: (1) the Young-Helmholtz theory; (2) the Brewster theory; and (3) the Lovibond theory. The primary colors in theory (1) are red, green, blue. This theory is used for spectrum colors and colored lights. Yellow, blue-green and violet are all secondary colors, being produced by combinations of red and green, green and blue, blue and red, respectively. However, let's not be bothered by any details of this theory, so far as textiles are concerned.

As seen on the Chromatic Circle (Fig. 1), the primary colors in the Brewster theory are red, yellow and blue, with the secondary colors orange, green and violet. This theory is used for dyes and pigments. It may be considered practical.

Theoretical Primaries

Theory 1—In mixing colored lights a la Young-Helmholtz, the resulting color is due to *addition*. That is, the rays of each color are added. This can be shown by superimposing, and rapidly rotating the superimposed colors. *Complementary* colored lights, when combined, produce the impression of no color, or *white*.

Practical Primaries

Theory 2—In mixing dyes and pigments, the resulting color is due to *subtraction*. That is, each color subtracts from the other the rays which it does not itself transmit, and thus the unabsorbed light which remains gives the color.

In this theory, *complementary colors* are those which, when combined, tend to produce grey or black. An easy way to visualize this is by use of a diagram known as a Chromatic circle, and Fig. 1 is a simple form of such a diagram wherein the primaries red, yellow and blue are labeled (A). The secondary colors, orange, green and violet, are labeled (B).

A combination of the primaries red and yellow tends to produce orange, which is a secondary. A combination of yellow and blue tends to produce green, another secondary; and a combination of blue and red tends to produce violet, the third secondary. On the Chromatic Circle as

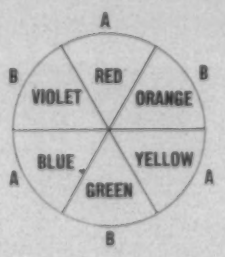


Fig. 1

shown in Fig. 1, those colors which appear diametrically opposed will, when combined, tend to produce grey or black. In other words, a combination of a primary and a diametrically opposed secondary tends to produce grey or black. This result is of great value when it is desired to produce a dulled shade without the use of black.

Theory 3—In this theory a primary color is one which can be visually separated from all other colors. For example, red, orange, yellow, green, blue and violet are here considered primaries because they can each be separately distinguished. The vision is sensitive to the primaries as visual monochromes, but it is an experimental fact that in most natural dyes and pigments they are divided into two classes: (a) orange, green and violet which are further divisible; that is, monochromes visually, and monochromes structurally; (b) red, yellow and blue, which are further divisible; that is, monochromes visually, but tri-chromes structurally.

Normal light is composed of red, orange, yellow, green, blue and violet in equal proportions. Abnormal or colored light is composed of red, orange, yellow, green, blue and violet in unequal proportions. Any abnormal beam of light is: (a) one strong ray in a single color; (b) several strong rays in a complex color. I never did fully understand these details, but maybe you will. Anyway these are the words, for whatever they may be worth.

The vision is not simultaneously sensitive to more than two colors or colored rays in the same beam of light; the color of any other abnormal rays being merged in the general luminosity of the beam. The two colors to which the vision is simultaneously sensitive are always adjacent in their spectrum order. For example: (red—orange), (orange—yellow), (yellow—green), (green—blue), (blue—violet), (violet—red).

The vision is unable to appreciate color in an abnormal beam outside certain limits, because (a) the color of an abnormal beam may be masked to the vision from an excess of luminosity. (b) The luminous intensity of an abnormal beam may be too low to excite any definite color sensations.

The vision has a varying time rate of appreciation for the different colors; being lowest for red, and highest for violet. This varying rate necessitates a time limit. In practice, about five seconds is adopted as a minimum limit, since variations are seldom perceptible in less than that time.

So much for this theory and, for my part, you can have it. Now we return to the *practical* Chromatic Circle business.

The Brewster Theory

In Figs. 2, 3 and 4 we have the diagramatic picture of the combination of red and yellow in order to produce orange. First we see the circle for red, Fig. 2. Now red may have a violet (bluish) cast, or it may have an orange (yellowish) cast; so for red we show the following Chromatic Circle.

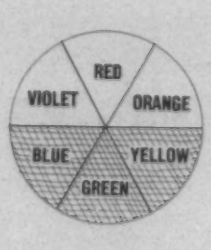


Fig. 2

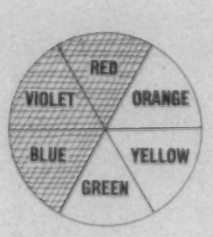


Fig. 3

And for yellow (Fig. 3) we show a circle wherein the yellow may have a reddish cast (orange), or a blueish cast (green).

Now for Fig. 4, we place these two circles side by side as in a mathematical equation—thusly:

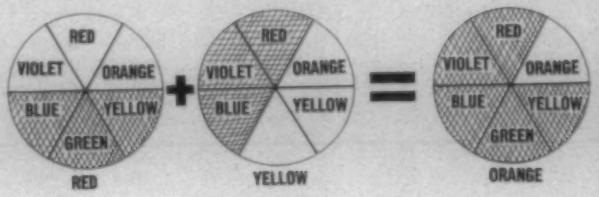


Fig. 4

If you will go back now and check the theory of the results achieved by *combining complementary colors* you will see that the violet unit in the left hand circle cancels out or dulls the yellow unit in the right hand circle, since they are diametrically opposed. Also that the red unit of the left hand circle cancels or dulls the green unit of the right hand circle. These two colors are also diametrically opposed. This leaves two units of orange as the preponderating color, which is what we were after when we originally combined red and yellow. This seems to make sense to me because I can visualize it by use of the chromatic circles.

So as to give you a little more mental exercise, let's combine yellow and blue; and then blue and red as in Fig. 5. The above explanation of what results covers these combinations also. The yellow may have an orange cast

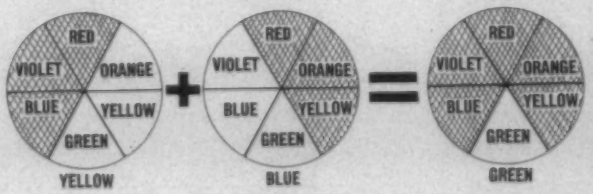


Fig. 5

or a greenish cast. The blue may have a greenish cast or reddish (violet) cast. So the orange unit cancels the blue unit. The yellow unit cancels the violet unit, and we have left two units of green, which is the resultant predominating color.

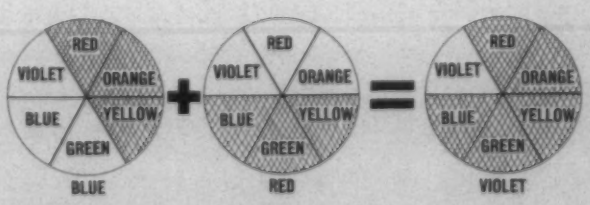


Fig. 6

In Fig. 6 the blue may have a greenish cast or a reddish cast. The red may have a yellowish (orange) cast or a bluish (violet) cast. So the red unit cancels out the green unit and the orange unit cancels out the blue unit, leaving

us with two violet units, which again is the desired answer. This sort of thing really intrigues me.

Combining Primaries And Adjacent Secondaries

Since we are this deep in the business let's just carry it a few steps farther. The more you consider these chromatic circles the more reasonable they seem, the easier they are to work with. Now take the primary colors red, yellow and blue (per Mr. Brewster) and combine each one with its adjacent secondary which will be red and orange; yellow and green; and blue and violet. The results are almost obvious, but we will continue with the circles in order to demonstrate how neatly these circles diagram the whole thing. Fig. 7 will represent the combination of red and orange.

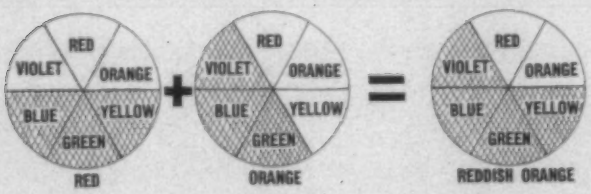


Fig. 7

Here again red may have a violet (blue) cast, or a yellow (orange) cast. Orange may have a red cast or a yellow cast, so the violet unit cancels out the yellow unit. This is the only cancellation, and it leaves two red units and two orange units. This gives us a reddish orange.

Yellow plus green works out like this:

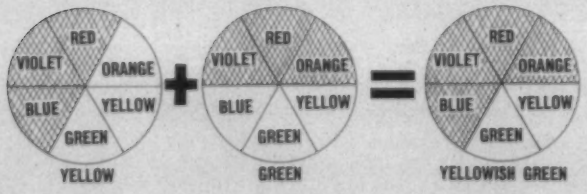


Fig. 8

See how it works? Blue unit cancels orange unit. That's all, and we have left two yellow units and two green units. Or yellowish green. Then to combine blue and violet we get circles like these to produce a blueish violet.

The only cancellation is that of red cancelling green. This leaves two blue units and two violet units, or, as mentioned above, blueish violet.

One more series, the combining of the secondary colors —orange, green and violet—and then we can move into somewhat more complicated diagrams.

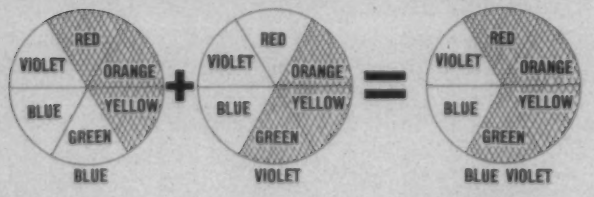


Fig. 9

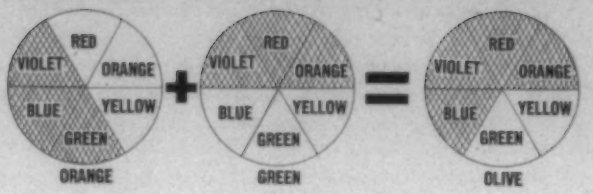


Fig. 10

Orange may have a reddish or a yellowish cast. Green may have a blueish or yellowish cast and the only cancellation will be one orange unit and one blue unit. However, the red unit and the yellow unit in the left hand circle (red-orange) and the yellow unit plus the green unit in the right hand circle (yellowish green) remain so we end up with a combination of reddish orange (orange) and yellowish green (green), plus dulling effect of red and green with the net result that old Army favorite, olive, or olive drab.

Green plus violet works out just as logically.

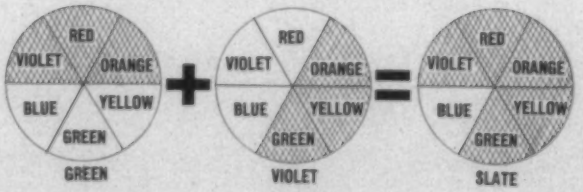


Fig. 11

Remember that green is a combination of yellow and blue and may take on either cast. Violet is a combination of blue and red and similarly may have either cast. Red and green cancel each other, as do violet and yellow, leaving two units of a very dull blue which is usually called slate.

And I might say at this point that when the word "cancel" is used, it signifies grey or neutral.

Finally in this step-by-step series, we combine violet and orange.

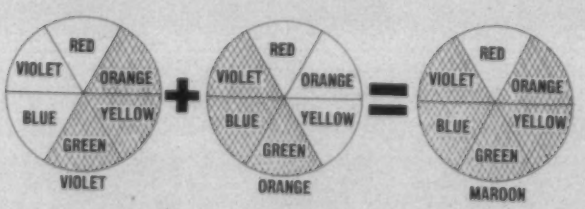


Fig. 12

In this case blue in the left hand circle cancels (or dulls) orange in the right hand circle. Violet in the left hand circle dulls yellow in the right hand circle, leaving two units of red dulled by the grey formed by the cancelling of the orange-blue, yellow-violet mixture. Not too easy to show diagramatically but it works.

If we wanted flat, lifeless olive, slate or maroon, we could simply add black to orange; black to green; or black to red. However, by combining orange and green; green and violet; violet and orange, as above, we get a rich olive, slate or maroon.

This principle is of great importance in producing the multitude of pleasing so-called "Mode Shades" and there

will be a later and more complex chromatic circle to show this via diagram.

The more complex chromatic circles are those illustrating the production of tints and shades. I say more complex, and they are more complex in a physical way, but actually they should prove to be simpler from a standpoint of the mental concentration required to appreciate them.

Illustration Of Tints And Shades

In the following diagram (Fig. 13) the first inner circle represents tints which are obtained from the full or saturated colors of the outer circle. Since there is no white in dyestuffs, we have to approach white by (a) reducing the amounts of color use and (b) by using bleached textile material.

As in full or saturated colors the tints have their same complementary tints as the full colors have their complementary colors, and may be dulled in the same way.

For example, when reducing the amount of red, by using more water, we obtain pink. The complementary tint of pink is the tint sea-green, obtained by reducing the amount of green with extra water. Now, if we should want a resultant tint (grey in this case), the resultant tint will have the hue of the color which predominates in strength. Thus we can have a pinkish grey (pearl) if red predominates, or a greenish grey (sea water) if the green component is in excess. The nuances are almost endless, and they are what sell merchandise, particularly hosiery.

As apparently contrasted to tints, but basically the same, is the production of shades. The fundamental difference is that we *can* add black if we want to, whereas we *cannot* add white in the case of tints.

Figure 13 also illustrates this matter fully, and one example should suffice here also. To produce maroon from red, just add black in the desired amount. Or just add black to green if dull sage is required.

However, and this is important, *very few dyers use black* in any appreciable quantity to dull a color in order to produce a shade. They use the complementary color, green in the case of red. Green is used in greater or lesser amounts, depending on the hue desired. The use of black alone tends to give a dead, lustreless shade—sort of like a chord of music without minor tones. As a matter of fact the word tone is used to more clearly define a shade or a tint.

To further amplify this discussion and these diagrams, one must always consider the combining qualities of the colors used. Practically every color as purchased has a tendency, one way or other, toward colors adjacent to it in the chromatic circle. That is to say, a red may have either a violet (blueish) cast, or a yellowish (orange) cast. A green may have either a yellowish cast or a blueish cast. Example: Two apparently similar blues when mixed with equal proportions of any given yellow may result in two greens with entirely different hues, or casts.

In order to produce the most nearly pure secondary color, always select the primaries which have a tendency of hue toward the desired secondary, since the presence of another primary tendency will result in a proportion of grey. It will have a dulling effect. Of course this feature can be used to advantage when a certain dulling effect is wanted.

For example: If a bright orange is required, use a red with a yellowish cast plus a yellow with a reddish cast. If a duller orange is needed use a red with a blueish cast plus a yellow with a greenish cast.

If you will check these statements in your laboratory you will see exactly what I am driving at.

The blueish phase of the red will tend to form green

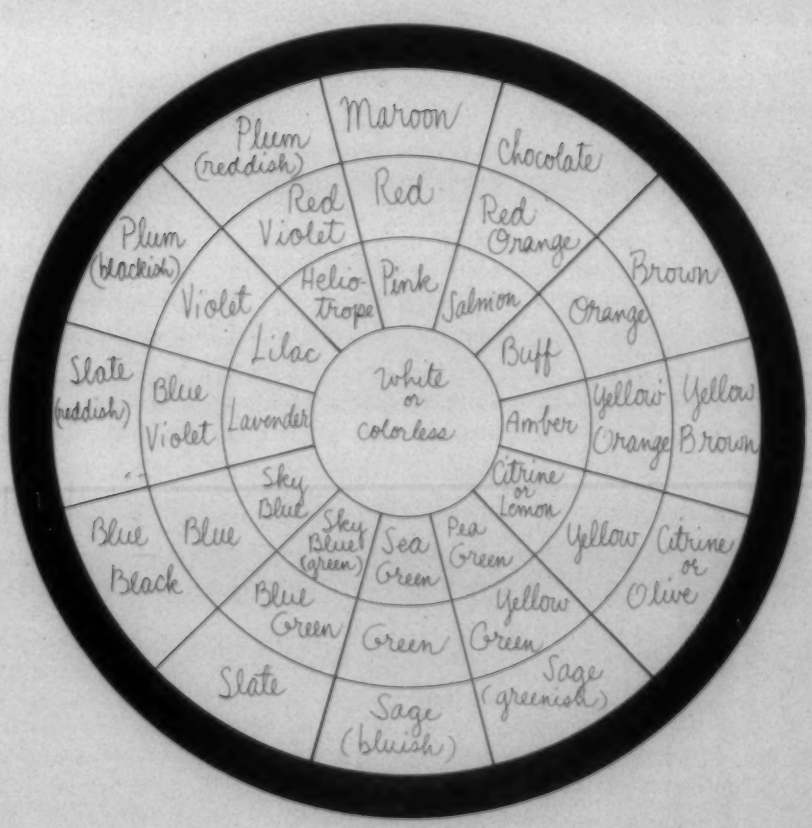


Fig. 13—Shown here are the 12 "full" colors and the results gained by obtaining either tints or shades of these colors. The concentric circle next to the black outer ring shows the shades obtained by adding black to the full colors. The concentric circle next to the white center shows the tints resulting when less dye of the full color is used.

with the yellow. This tendency plus the green cast already present in the yellow will result in dulling, due to the effect of these two traces of green interacting with the red. NOTE WELL. In combining colors for delicate compound tints or shades, be sure to make use of the above dulling effect, rather than resort to the use of black or grey.

And in conclusion, providing you are one of those who wants to know how a story ends before wading through all the pages, you won't get much help out of what's gone into this thing unless you read it and think about it, and then read it some more. It is sound and you can depend on it, but you will have to study it, not just read it.

Maintenance, Engineering & Handling

Condensate Drainage Systems

Increase Production, Improve Quality, Lower Steam Costs

By RALPH J. LUNDRIGAN*

THE efficiency of textile industry steam processing units can be increased two ways through the use of closed-loop, high-pressure condensate return systems: (1) returning condensate directly to the boiler or make-up system with minimum heat loss; and (2) permitting rapid and complete transfer of latent heat from steam to product. These systems eliminate all of the thermal losses of open-type drainage systems.

Closed systems maintain higher operating temperatures and more uniform heating with the same steam pressure than is possible with open systems. Product quality is increased, steam costs are reduced and plant production is stepped up. These systems have widespread application throughout the textile industry, where steam is used in dyeing, felt drying, cabinet dryers, festoon dryers, pressing operations, dry cans, calendering, tentering, burlap drying and other miscellaneous operations.

By returning condensate directly to the boiler or make-up system at temperatures only a few degrees less than of the steam used in the processing unit, these systems minimize flash loss and temperature reduction. This lowers fuel costs, make-up water requirements and water treatment expense. More important, from an economic standpoint, is the fact that proper condensate drainage provides adequate continuous venting. This insures maximum condensate film removal and air elimination while maintaining high back pressure and temperature head against the condensing medium. As a result, the latent heat of vaporization is transferred from steam to product easily, rapidly and completely.

Condensate Handling

A typical case will illustrate how proper condensate handling improves processing. Suppose that you have a boiler generating 10,000 pounds of steam per hour at 150 p.s.i. for a tentering dryer operating at 100 p.s.i. With the best possible steam traps to drain the dryer coils, condensate will leave the traps at about 330° F. If in the conventional manner, this condensate is then collected in a receiver or heater that is vented to a low pressure, some condensate will be lost due to flashing and the rest will have its temperature lowered to about 210° F. Approximately 120° F. of sensible heat is lost as a result of handling the condensate at atmospheric temperature. This lost heat must be restored by the boiler before the condensate can again be turned into steam.

Losses also occur because of incomplete latent heat transfer. Steam enters the coils and contacts the heat transfer surfaces. As latent heat is expended through these surfaces, steam condenses and gases and air are released in minute quantities. The condensate that is formed clings to the heat transfer surfaces while it flows to the coil outlet. A steam trap at the outlet opens to vent liquid, gases and air to the condensate return line. However, while condensation is constant, trap openings are intermittent. Pressure builds up while the trap is closed and lessens while it is open. Thickness of condensate film on the heat exchange surfaces therefore varies as this pressure changes. In addition, some condensate flashes into steam at the trap opening and tends to choke liquid flow.

The condensate film and entrained air and gases that are therefore present most of the time in this drier decrease the rate of latent heat transfer. Since water insulates as well as plasterboard and entrained air as well as powdered cork, it is obvious that their presence on the coil surfaces will lower the maximum tentering production rate obtainable.

High Drainage Pressure

All of these losses can be eliminated by the use of a modern closed-loop, high-pressure drainage system. One such drainage system, developed by Cochrane Corp., employs a new principle of jet action to return condensate directly from the drier to the boiler or make-up system without loss of sensible heat. Known as the C-B drainage control unit, this device uses a combination pump—centrifugal and jet—to maintain continuous flow and optimum

*Cochrane Corp., Philadelphia, Pa.

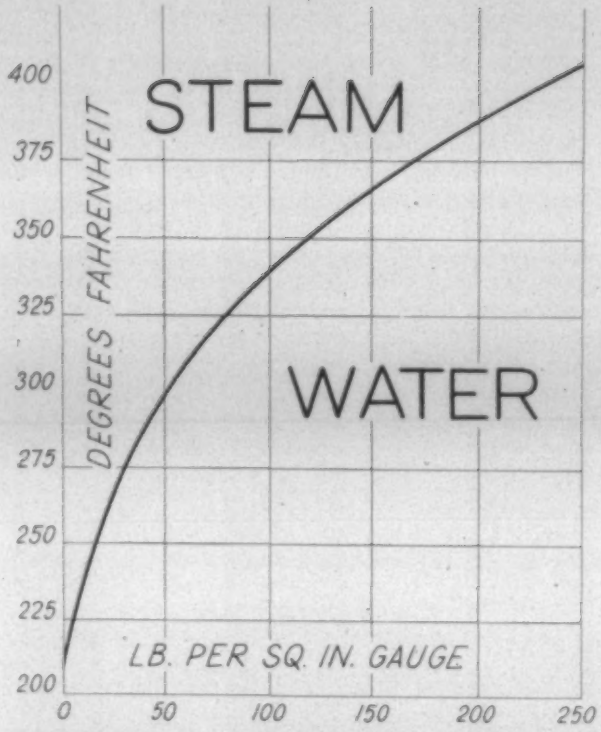


Fig. 1—High pressure condensate return systems handle condensate at the saturation temperature corresponding to condensate return line pressure as shown on this standard steam table.

vent rate without excessive losses of steam pressure or temperature head.

One of these C-B drainage units was installed on the tentering system previously described. It was rated to handle the full 10,000 pounds per hour of steam (20 g.p.m. of condensate) and to maintain a differential pressure between pump input and output of 70 p.s.i. This is adequate to allow the pump to take suction directly from the drier outlet line and inject it into the boiler without first reducing it to atmospheric pressure. This eliminates the flash loss, water loss and temperature loss, except line radiation, of the conventional system. The entire sensible heat loss of the former system is eliminated, reducing steam cost by approximately 10% which amounts to a gain of about 1,000 pounds of steam per hour.

Condensate return line pressure is stabilized at a point corresponding to the saturation temperature of the liquid as shown in Fig. 1. The result is that the return line becomes "dry" and the pressure in it corresponds to line temperature. In the above example, pressure is 90 p.s.i. corresponding to the 330° F. line temperature. Because of this high back pressure there is only an extremely slight pressure drop across the bucket trap orifice. The back pressure holds the trap open constantly in the presence of liquid in the trap body. Conventional intermittent trap action is converted into a modulated flow and the trap becomes a control device—opening in direct relation to condensate rate and closing only in the presence of complete steam flow. This would occur if the process were non-condensing.

Liquid, gases and air are consequently removed freely by the jet pumps the moment they are formed or released. Heat transfer surfaces are therefore always free of condensate film and condensing chambers are always free of gases and air. Even the most rapid condensation can not affect operation because there are no longer any high pressure drops in the entire circuit. Flow induced by the jet action is in proportion to condensing rate. No steam is wasted, no film of gas or air occurs and temperatures are stabilized at the highest possible point.

All of the losses that existed with the former open drainage system have been eliminated, with the exception of normal radiation through pipelines or vessels. Condensate is returned directly to the boiler with no loss in sensible heat. Drying surfaces are uniformly hotter and the dryer can be speeded up to increase production without increasing steam pressure. Latent heat transfer is faster and easier, and flashing at the condensate outlet is reduced to less than ½%. Product uniformity is improved and steam costs are reduced about 10%.

Circulating Loop

The C-B unit illustrated in Fig. 2 consists of a jet pump energized by a centrifugal pump that is always primed by its own discharge pressure. Condensate from the return line enters through a strainer into the jet chamber. Here it is drawn into the mixing chamber and circulating loop by the jet pump nozzle. As this condensate enters the already-filled loop it causes the discharge of an equal volume of water through the air separator to the boiler supply line. Entrained air and gas are vented from the system in the separator and condensate is returned to the boiler at a high temperature. Thus a closed circuit is created. Steam flows from the boiler to the process vessel and condenses there. The condensate is then pumped directly back into the boiler through the C-B unit, without substantial loss in temperature or pressure.

When there is no condensate, the jet pump maintains return line pressure at the same level and retards steam flow. When condensate is present, it is drawn into the loop. Because the centrifugal pump is self-priming it cannot become steam bound. No steam can pass through the venturi tube. Fins on the recirculating loop remove

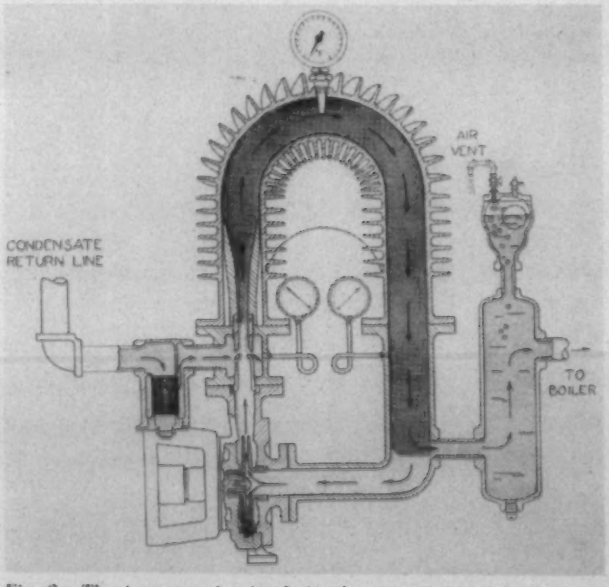


Fig. 2—The jet pump in circulating loop is energized by a centrifugal pump. Condensate, air and gases enter the jet chamber through the strainer at left. Addition of condensate, caused by jet action drawing it into loop through venturi mixing chamber, displaces liquid from the already-filled loop through an air separator to the boiler supply line.

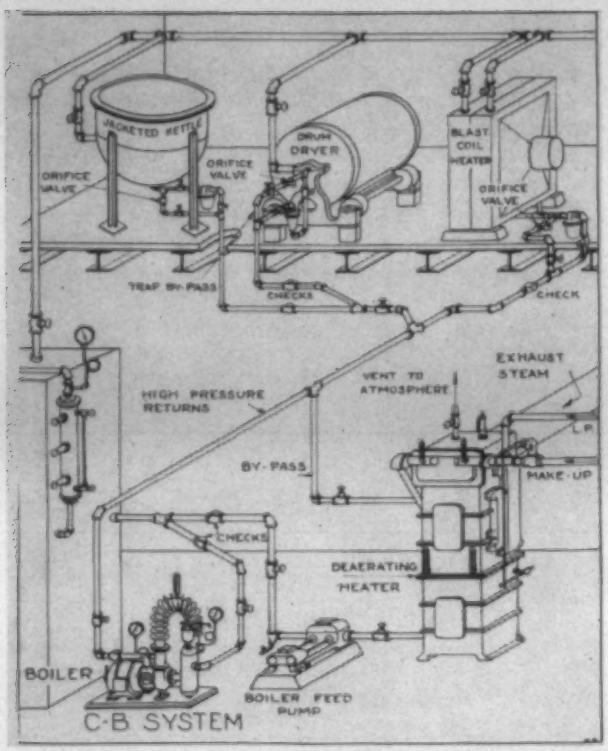


Fig. 3—A typical installation of high pressure condensate return is illustrated by this completely closed circuit bypassing the conventional open system receiver. Condensate is returned to the boiler at close to process temperature.

excess temperature due to motor input when the process is non-condensing. The pump requires no receiver, float switch, or automatic control. It requires no attention other than starting it up or shutting it down.

Condensate, gases and air are removed as fast as they are formed. Jet action keeps the return line pressure at a point corresponding to the saturation temperature of the fluid. Pressure drop is minimized and back pressure is maintained under heavy condensing loads. The condensate return line is maintained "dry" and heat transfer surfaces are kept clean of liquid film insulation or air or gas temperature dilution.

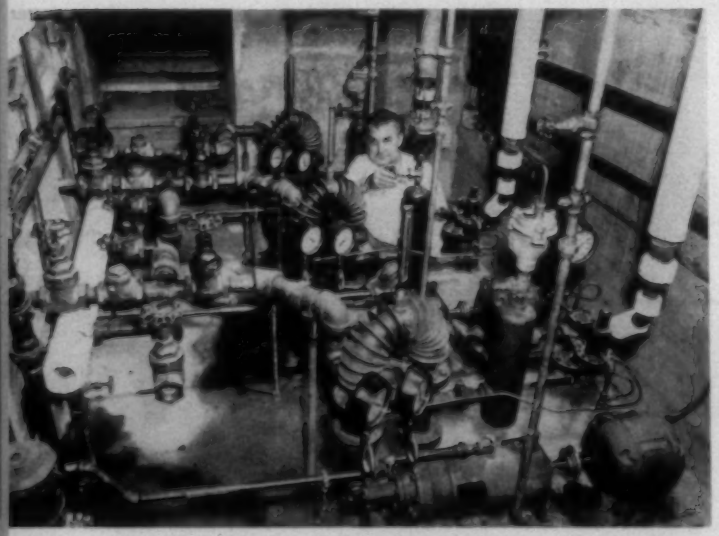


Fig. 4—These three C-B condensate drainage control units, installed at a Connecticut textile mill, have increased drying speeds up to 100%. Spotty drying of print cloths has been eliminated and production has been increased about 15 to 25%. This has been accomplished with fuel savings of roughly 10%.

Practical Applications

Companies in all branches of the textile industry, using steam for dozens of different processes, have reported increased production and reduced costs through the use of these condensate drainage systems. A Connecticut textile manufacturer uses 60 broad looms, two narrow looms, and 7,000 twister spindles and performs bleaching and finishing operations. When a high-pressure condensate return system, Fig. 4, was added to return condensate from the dryers to two 300 h.p. boilers, drying speeds were increased up to 100% and spotty drying of printed fabrics has been completely eliminated. Production has been increased an average of 15 to 25%. In addition to increased production, boiler feed water temperature has been raised by 100° F. and boiler capacity has been increased by 2,500 pounds per hour. It has been estimated that the C-B condensate return system has also decreased fuel costs by approximately 10%.

Felt And Hair Dryers

A felt and hair company's stoker-fired boilers supply steam for hair and felt dryers at 75 p.s.i., in addition to steam for can driers and unit heaters operating at 15 p.s.i. Normal Winter load is about 400 h.p., while Summer load averages 300 h.p. Where felt was previously fed at a rate of five lineal feet per minute with a standard open condensate return system, feed rate with a new condensate unit has been increased to seven feet per minute. Drying is completely adequate and there is no necessity for re-runs. Coarse hair previously had to be run through the hair dryers at a number three slow speed to insure thorough drying. Now all grades are run at number one high speed. While better latent heat transfer increased productivity of these drying units, the improved b.t.u. recovery also made possible by the C-B unit has reduced fuel costs. Where four carloads of coal were previously burned per month, three carloads are now sufficient—a fuel saving of 25%. This monthly fuel saving is overshadowed by the production increase.

A textile dyeing company located in Reading, Pa., operates two 250 h.p. boilers to supply steam at 125 p.s.i. for dye vats, dryers and for plant heating. A high pressure condensate return system was installed at the plant primarily to increase the heat transfer rates of the company's steam using equipment. Positive drainage of condensate and air from the heating coils resulted in an immediate reduction in drying time of about 20%. Because the condensate is returned directly to the boiler at higher temperatures there has also been a marked fuel savings. A third 125 h.p. boiler has been cut out completely and is now used only for stand-by purposes. Make-up water treatment costs have also been reduced.

A large Eastern burlap drying plant uses 125 pounds steam in its dryers. Condensate was formerly returned to a vented receiver but since the installation of a C-B condensate is returned directly to the boiler at higher temperatures. This has resulted in a 20% reduction in steam costs. Additional benefits are a 20% increase in dryer speed and an improvement in product uniformity due to better latent heat transfer.

Promotions, Resignations, Honors, Transfers, Appointments, Elections, Civic and Associational Activities

PERSONAL NEWS

R. I. Dalton Jr. has been named general manager of the cotton system machinery sales division of Whitin Machine Works, Whitinsville, Mass. Dalton willl be carrying on the sales activities formerly handled by Vice-President Robert J. McConnell. The cotton system machinery sales division handles the sale of all of the machinery built by Whitin for processing cotton fibers, as

R. I. Dalton Jr.

R. J. McConnell

well as similar machinery adapted to short staple synthetic fibers and blends. Dalton was transferred to the Whitinsville office in 1958 from his position as Southern agent in the Charlotte sales office. He has been associated with the company since 1946. He is a graduate of North Carolina State College with a B. S. in yarn manufacture. McConnell has retired from active sales work but continues his association with the company in the capacity of consultant to the sales department. He joined Whitin in 1935 and was placed in charge of cotton mill service. He was largely responsible for the successful launching of the American System Machinery as it is known today. He is a member of the Textile Committee of the American Society of Mechanical Engineers and the American Association of Textile Technologists.

Albert J. Royce Sr., president and founder of Royce Chemical Co., Carlton Hill, N. J., has been named chairman of the board and chief executive officer. He is succeeded as president by his son, Albert J. Royce Jr., formerly vice-president and treasurer. Another son, Howard C. Royce, is advanced from vice-president in charge of sales to executive vice-president. Royce manufactures chemical specialties for the textile industry.

Dr. Albert L. Elder, director of research for Corn Products Co. of Argo, Ill., and an authority on starch and protein chemistry, will head the American Chemical Society, world's largest professional scientific organization, during 1960. He has just been voted president-elect to succeed Dr. John C. Bailer Jr., professor of inorganic chemistry at the University of Illinois, who will serve as president of the A.C.S. during 1959. In nationwide balloting, Dr. Elder was elected by the 86,000 chemists and chemical engineers who are membeers of the American Chemical Society.

Dan River Mills, Danville, Va., has announced that Irvin L. Payne, previously assistant general superintendent of the company's Danville Division, has been named superintendent of Dan River's Alabama Division. He will make his headquarters in Montgomery. . . . R. C. Gourley, formerly division superintendent of the Alabama Division, has been named staff superintendent at Danville. In this capacity, he will supervise the activities of the manufacturing staff departments, including engineering, technical, supply control and the Schoolfield Shops.

Jay L. Cherry has been named advertising manager of Saco-Lowell Shops, Boston, Mass. A graduate in textile engineering of the Lowell Technological Institute, Cherry first joined Saco-Lowell Shops in its Biddeford, Me., plant as editor of the *Repair Sales News* publication, and in this position he worked closely with A. L. Landau, manager of Saco-Lowell's replacement parts division.

Allan J. Nelson, superintendent of the Springfield (Tenn.) Woolen Mills, has resigned. Nelson had served as superintendent for the past 17 years. His plans were not disclosed.

Robert M. Vance has been named president and treasurer of Clinton and Lydia Cotton Mills, Clinton, S. C., succeeding the late P. S. Bailey. Vance is president of M. S. Bailey & Son, Bankers, and a grandson of the late M. S. Bailey, who founded the mills. . . . George H. Cornelson Jr. has been appointed vice-president of the mills and also vice-president of Clinton Cotton's Inc. of New York City. He joined the mills in 1954 in the industrial engineeering department. He is also a director of the organization and of M. S. Bailey & Sons. . . . Bailey Dixon has been named assistant treasurer of Lydia Cotton Mill. A graduate of Georgia Tech, Dixon was formerly supervisor of card room No. 2 at Clinton Cotton Mills. Dixon and Cornelson are great-grandsons of M. S. Bailey.

Sinclair Weeks

Sinclair Weeks, former U. S. Secretary of Commerce, has been elected to the board of directors of West Point (Ga.) Mfg. Co. Weeks resumes a relationship with the company that was begun in 1936 when he was first elected to the board. He served in this capacity until 1949, except for a brief period when he was a member of the U. S. Senate representing Massachusetts.

Two members of the Charlotte textile division headquarters staff of Celanese Corp. of America have been given new appointments. Laurence T. Gerrity, formerly assistant general sales manager of the division, has been named director of textile marketing of Celanese Mexicana, S. A., with headquarters in Mexico City. Gerrity had worked in the Charlotte offices since 1956, first as textile sales development manager, and for the last 18 months as assistant general sales manager. Joining Celanese in 1945, he worked initially in the textile production planning department and on the New York district textile sales staff. In his new Celanese Mexicana assignment, he will

serve also as a member of the management committee there. . . . Harlan M. Trammell, formerly director of rayon operations in the division's manufacturing department, has been named plant manager of the Celanese textile fiber plant in Narrows, Va. He succeeds H. Kenneth Busch, newly-appointed chairman of the management committee of Celanese Mexicana. Trammell's service with Celanese and the former Tubize Rayon Corp. (acquired by Celanese in 1945) dates back to 1940. Following study at East Tennessee State College, he did research work for North American Rayon Corp. from 1930 to 1940, leaving in the latter year to join Tubize in Rome, Ga., as a research engineer. Subsequently, he served for four years as a group leader in viscose research, successively with Tubize and Celanese. . . . H. Kenneth Busch, whom Trammell succeeds, had been manager of the Narrows plant for the past year. Previous service includes work as a chemical engineer and unit superintendent for tthe Celanese Chemical Division in Bilshop, Tex., and as production manager in the Edmonton, Alberta, plant of Canadian Chemical & Cellulose Co. Ltd.

James W. Herring has been named manager of market research and product planning for Texize Chemicals Inc., Greenville, S. C. Herring has been connected with management consultation services of General Electric at its general offices in New York. Prior to that he was in charge of forecasting and budgeting for the photo lamp department of the company in Cleveland, Ohio.

James Barringer

James Barringer has been named treasurer of Crompton & Knowles Corp., Worcester, Mass., succeeding Rufus S. Frost, who has retired. Barringer joined C & K in 1950 as assistant controller, was named controller in 1953, and assistant treasurer and controller in1957. He is an officer and a director of several C & K subsidiaries. A certified public accountant, he is a member of several professional organizations, including the Controllers Institute of America. Frost joined the company in 1915 in the cost department and later transferred to general sales. Following military service in World War I, he was named executive committee clerk in 1920, director in 1930, corporation clerk in 1934, assistant sales manager in 1935, vice-president in 1938, and treasurer in 1946.

Clifford H. Graves, treasurer of Commercial Factors Corp., New York City, has been named vice-president of the company. He has been with Commercial since 1949. Prior to that he was with Blue Ridge Manufacturers Co., the Bankers Trust Co. and J. Schoeneman Inc. . . . Raymond T. Murphy, assistant contact officer, has been named assistant vice-president of Commercial. Murphy has been with the firm since 1952.

Henry Arthur Newby has assumed new duties as overseer of wool carding and spinning at the Hillside Plant of the Hillcrest Division of Callaway Mills Co., LaGrange, Ga. Prior to joining Callaway, Newby was associated with Fieldcrest Mills, Spray, N. C.; Davis & Furber Machine Co., North Andover, Mass.; Wyandotte Worsted Machine Co., Watersville, Me.; and the Engleheart Woolen Mills, Albright, W. Va.

Wayne W. Downs, technical assistant in textiles in the Lancaster, S. C., general office of the Armstrong Cork Co., has been transferred to the Greenville, S. C., district office to serve as a salesman. Downs had served as technical assistant in textiles since 1957 when he completed his sales training with the company.

R. E. Lenhard, executive vice-president of Air Reduction Sales Co., the industrial gases and welding products division of Air Reduction Co., has been appointed president of that division. He succeeds J. H. Humberstone who, as vice-president of Air Reduction Co., will devote full time to corporation affairs. Home offices for both Air Reduction Co. and the Air Reduction Sales Co. are at 150 East 42nd St., New York 17, N. Y.

Thomas S. Waller has been appointed plant manager of the Celanese Corp. of America spun yarn plant in Burlington, N. C. He succeeds Frank B. Cameron, who has been assigned as production manager of the Celanese textile fiber plant in Cumberland, Md. For the last ten years, Waller had been

associated with Celanese Mexicana, S. A., in Mexico City. Joining Celanese in 1941, Waller worked for five years initially in research and development dyeing and production dyeing in the Cumberland plant. His background also includes work for Dan River Mills, Danville, Va., and Colonial Mills, Clarksville, Va.

A. U. Priester

A. U. (Buck) Priester Jr. has been elected executive vice-president in general charge of all operations of Callaway Mills Co., LaGrange, Ga. Priester joined the company in 1932 and has served in various supervisory capacities. Since 1945 he has served as vice-president and general manager of the Hillcrest Division. . . . P. N. Colljer has been named vice-president in charge of manufacturing. Collier began his association with the organization in 1928. His most recent post was that of vice-president and general manager of the Elmrose Division.

Cameron A. Baker of the United States Testing Co., Hoboken, N. J., has been named president of the American Association for Textile Technology, succeeding Gerald Lake of Burlington Industries. Baker has served on the board of governors of the A.A.T.T. and is the immediate past vice-president of the association. He has been chairman of the textile section of the New York Board of Trade and is currently a director on the parent board of the New York Board of Trade. He is a councilor of the New York District of the American Society for Testing Materials.

American Enka Corp. has announced the appointment of Lester F. Zerfoss as director of industrial relations and management services, succeeding Theodore G. Ford, who resigned January 9 to resume his employment with Industrial Relations Counselors Service Inc. of New York City, with whom he was associated prior to joining Enka in 1955. Zerfoss, formerly staff advisor for personnel development and training, has been wth Enka since 1952. He served for a period as assistant director of industrial relations and has been on the staff of the president since 1955.

Dr. T. F. Cooke has been named commercial development manager for the organic chemicals division of American Cyanamid Co., in which post he will be responsible for co-ordinating technical service, market research and market development functions of textile chemical products. Dr. Cooke has been with American Cyanamid since 1940.

Dr. R. E. Greenfield, vice-president, manufacturing, will retire from the A. E. Staley Mfg. Co., Decatur, Ill., on March 1 after 33 years with the company. He will be 65 in February. Dr. Greenfield joined Staley's in 1926 as a research chemist. He became vice-president in charge of manufacturing in 1951. . . . William B. Bishop Sr. has been named general superintendent of the company. He has been with the company 32

years. A graduate of Iowa State College, he joined Staley's as a chemical engineer in 1927. He became chief chemical engineer in 1944, and has been technical superintendent since 1946. . . . C. James Dustin has been appointed technical superintendent. Dustin has been with the company 20 years. He graduated from Iowa State College in 1938 and joined Staley's as a chemical engineer. He has been methods and materials superintendent since 1956. . . . W. Robert Schwandt has been named assistant superintendent of the dry starch section. Schwandt has been with the company 13 years. He graduated from Iowa State College in 1943 and was with Monsanto Chemical Co. at Dayton, Ohio, before joining Staley's as a junior chemical engineer in 1945. He has been assistant superintendent of the dry starch section since 1956.

Harold G. Shelton

Harold G. Shelton, formerly director of marketing, has been appointed general manager of the dyestuff and chemical division of General Aniline & Film Corp, New York City. Shelton replaces Philip M. Dinkins, who as a former vice-president of General Aniline, and also general manager of this division, was recently elected to the presidency of the company, succeeding John Hilldring, now chairman of the board and chief executive officer. Shelton joined General Aniline & Film in 1945 as sales manager of the Antara Chemicals department of the dyestuff and chemical division. Prior to joining General Aniline he was associated for 13 years with Union Carbide and its subsidiaries in West Virginia, New York and Ohio. Shelton will make his headquarters at 435 Hudson St., New York City, main offices of the dyestuff and chemical division.

William B. Woodall Jr. has joined the sales staff of Arnold, Hoffman & Co. He will service the company's accounts in the Atlanta area, filling the vacancy created by the assignment of John T. Rose as manager of the Arnold, Hoffman Charlotte sales office. A graduate of North Carolina State College School of Textiles, Woodall formerly was employed by Reeves Bros. in the piece goods dyehouse of its Eagle & Phenix Division at Columbus, Ga.

Edward H. Stall has been appointed superintendent of the Apalache Plant of the cotton division of J. P. Stevens & Co. He succeeds Carl McCombs, who transferred to the Victor Plant. Stall, a graduate of Georgia Tech, spent several years as instructor in the central training department of J. P. Stevens & Co. before entering the weave room at the Greer Plant, where he became general overseer of of weaving, and later general overseer of carding and spinning. The Apalache Plant is located in Greenville, S. C.

Frank A. Floyd Jr. has been named product manager of Excelsior Mills, Union, S. C. Floyd was formerly with the firm's finishing production planning office. . . . Fred Williams, formerly general office manager has been named production control manager. . . . James Herbert Riley Jr. has been promoted from assistant office manager to general office manager.

Robert L. High has been named director of applied research at the Keever Laboratories, Columbus, Ohio, by the Keever Division of National Industrial Products Co. High joined the Keever organization in 1955 in technical sales. He is a chemistry graduate of the University of Cincinnati. Prior to joining the Keever Starch Co., he was engaged in research and technical sales at Kilmore Inc., Virginia-Carolina Chemical Co., and Cincinnati Testing & Research Co. . . . Walter M. Miley has been appointed a director of basic research for the Keever Starch Division.

Warren W. Danner, controller, has been named general superintendent of greige mills for Fulton Cotton Mills Inc., Atlanta, Ga. Before joining the company in 1947, Danner was with several Southern mills in supervisory capacities. . . . J. A. Bradshaw has been named superintendent of maintenance. He has been with the firm since 1947 and was formerly superintendent of the textile bag operation. . . . Luther Wallace has been named to Fulton's new post of superintendent of towel manufacture.

Dr. Joseph B. Quig, associate professor of chemistry at Lowell (Mass.) Technological Institute, has beeen elected to fellowship in the Textile Institute, with headquarters in Manchester, England. Dr. Quig was associated for more than 30 years with the fibers department of the Du Pont Co., Wilmington, Del., as manager of technical service, assistant director of development, and as manager in the textile research department. Award of the fellowship was recommended by the diplomas committee of the Textile Institute on the basis of Dr. Quig's contributions to the textile industry, particularly with respect to the development and application of synthetic fibers and his illustration of the merits of the blending of natural and man-made fibers in research and development. A fellow of the Textile Institute is entitled to practice and to describe himself as a Chartered Textile Technologist and may use after his name the initials, F.T.I.

John R. Taylor has been assigned to the staff of American Viscose Corp.'s technical and textile service department at Marcus Hook, Pa. Taylor joined the corporation in Roanoke, Va., in 1946 as a control chemist. In 1950 he became quality control supervisor and was named technical superintendent in 1956, the position he has held to the present. Prior to his affiliation with American Viscose, Taylor was an assistant professor of chemistry at Washington & Lee University, where he earned an M. S. degree in organic chemistry in 1936.

Chester G. Landes

Chester G. Landes has been appointed technical director of Wica Chemicals Inc., Charlotte. For the past 22 years, Landes has been with the Stamford (Conn.) Research Laboratories of the American Cyanamid Co. He is well known in the chemical industry and has a number of patents and published technical treatises to his credit. Landes is a member of several technical societies including the American Chemical Society. His educational background includes a Bachelor of Chemical Engineering from Ohio State University and graduate work in chemistry at the Polytechnic Institute of Brooklyn, N. Y.

Blaine A. Dellinger of Cherryville, N. C., former manager of Carlon Division of Carlton Yarn Mills, Kings Mountain, N. C., has joined Sam M. Butler Inc., Charlotte. Prior to his management of the Carlon Division, Dellinger was connected with the cotton department of Carlton Yarn Mills. Sam M. Butler Inc. acts as sales representatives for a number of Southern spinners producing yarns in all types of spun fibers.

Mason P. Thomas, former president and general manager of Hadley-Peoples Mfg. Co., has joined the Whitin Machine Works sales organization and will be assigned to the new machinery sales division, working out of Charlotte. Thomas is a graduate of North Carolina State College with a B.S. degree in textile manufacturing. Following graduation, he worked for Priscilla Spinning Co. in Ranlo, N. C., and Roxboro (N. C.) Cotton Mills. He first joined Whitin Machine Works in 1926 and was connected with the sales department there until 1944, when he acquired an interest

in Hadley-Peoples Mfg. Co., Siler City, N. C., and became president and general manager of the company. He sold his interests in that mill in May 1958.

Robert L. Carroll

R. L. Carroll of Greenville, S. C., has been named exclusive representative in the Southern states for Heany Industrial Ceramic Corp. of New Haven, Conn., manufacturer of Heanium long-life ceramic thread guide. Carroll's experience and engineering knowledge in the textile field will enable him to offer improved services and assistance in problems of textile guide designing, improving yarn paths, package building and proper tensioning, the company reports.

Frank F. Myers has been named manager of the Charlotte office of Geigy Dyestuffs, division of Geigy Chemical Corp. Myers succeeds Howard M. Sprock, who has been with Geigy for 36 years and served as Charlotte branch manager since 1929. Sprock will go into partial retirement, representing the company in a number of accounts in the Charlotte area. A graduate of Georgia Tech, Myers joined Geigy as a salesman in its Chattanooga branch office in 1935, after six years as dyer for the Richmond Hosiery Mills in Rossville, Ga. Later he became manager of Geigy Dyestuffs Chicago office. He spent two years on special assignments in the main office in Ardsley, N.Y.

Thomas E. Neal, formerly assistant vice-president in charge of the Atlanta, Ga., office of Walter E. Heller & Co., has been elected vice-president of that office. Neal joined Walter E. Heller & Co. in 1953 and was formerly a vice-president of Joel Hurt & Co. He supervises the firm's factoring operations in seven Southeastern states.

Fred L. Connell

Fred L. Connell has joined the executive force of Wilson Lewith Machinery Corp., Charlotte, as general manager. Connell was formerly with the Crescent Corp. of Spartanburg, S. C. He succeeds V. A. Brewer, who has been promoted to vice-president. Brewer has been with the company for the past 12 years. Wilson Lewith is a dealer in used textile machinery.

William G. Klein, senior associate at Fabric Research Laboratories Inc., Dedham, Mass., has been named to the recently-formed A.A.T.C.C. National Advisory Committee on the Use of Statistical Methods. The function of the four-man committee is to give statistical assistance to all other A.A.T.C.C. committees throughout the country in the design experiments, inter-laboratory tests, etc., and in the analysis and interpretation of data. Klein, who is presently a candidate for his doctorate in mechanical engineering at Massachusetts Institute of Technology, has been with

F.R.I. since 1948. He has authored or co-authored several research papers on the theory of statistics in blended yarns, and much of his current professional activity is in the application of mathematical and statistical methods.

Leon Kimmel, formerly president of the Leon Kimmel Machinery Co., Greeenville, S. C., and most recently with *America's Textile Reporter*, Greenville, has joined the Interstate Equipment Co. of Charlotte as sales manager. Interstate, a member of the Morris Speizman group of companies, specializes in textile machinery to the cotton, wool and synthetic spinning and weaving trade as well as dyeing and finishing equipment. Kimmel will specialize primarily in the synthetic and cotton machinery department of the organization.

Robert H. Griffith and his associate, Ish Payne Jr., of Chattanooga, Tenn., have been chosen to represent Ralph Gossett & Co., Greenville, S. C., in the sale of metallic yarn manufactured by Nylco Products Inc. of Clinton, Mass. They will cover the states of Georgia, Alabama, Tennessee, Kentucky, Mississippi and Texas. . . . Hubert O. Fry of Chattanooga has been named representative for the company in the sale of nylon, Dacron, rayon and acetate yarns distributed by Brawer Bros. Silk Co. of New York. Fry will cover the same territory as the other men.

Paul Kaplan has been named to the position of technical director of Stein, Hall & Co., New York City. Kaplan will be in charge of technical facilities in the company's laboratories and development department in New York; the textile laboratories in Charlotte, N. C., and Pawtucket, R. I., and the plant laboratory in Charlotte. . . . Albert R. Robbins has been appointed manager of the development department with headquarters in the company's offices at 285 Madison Avenue.

Dr. J. H. Paden has been named director of research for the organic chemicals division, American Cyanamid Co., New York City. He will make his headquarters at the company's laboratories in Bound Brook, N. J. Dr. Paden joined Cyanamid in 1937 as a research chemist. In 1950, he was named director of the research department of the Stamford Laboratories, serving in this capacity until 1954 when he became director of the Bound Brook laboratories. He is a member of the American Chemical Society.

OBITUARIES

Roy H. Anderson, 61, treasurer and assistant general manager of Peerless Woolen Mills, Rossville, Ga., branch of Burlington Industries, died unexpectedly January 1 of a heart ailment. Mr. Anderson joined Peerless in 1928 and had been a company officer for years. His widow, two daughters and a son survive.

P. S. Bailey, 54, president and treasurer of Clinton and Lydia Cotton Mills, Clinton, S. C., and president of the South Carolina Textile Manufacturers Association, died last month of a heart attack. Mr. Bailey had been connected with the mills since 1926. He was named vice-president in 1938 and became president in 1948. He was also a director of M. S. Bailey & Son, Bankers. He is survived by his widow and a daughter.

Sidney A. Burts, 80, vice-president and treasurer of Osage Mfg. Co. of Bessemer City, N. C., died last month of a heart attack. He joined Osage in 1931 after having had charge of the Liberty, S. C., plant of Easley (S. C.) Mills. Survivors include his widow, a daughter, a stepson and two stepdaughters.

Ubald E. (Duke) Dubois, 64, retired sales engineer of Saco-Lowell Shops, Boston, Mass., died December 23. Mr. Dubois had been associated with Saco-Lowell for some 42 years, beginning his career with the original Lowell Machine Shop in Lowell, Mass. Surviving is his widow.

Andrew S. Melvin, 54, president of Gastonia (N. C.) Textile Sheet Metal Works and an official of Gastonia Comber Needling Co., died December 31. Surviving are a son and a daughter.

Walter M. Schwartz, textile machinery manufacturer, passed away at his home in Philadelphia, Pa., December 19. Mr. Schwartz was honorary chairman of the board of Proctor & Schwartz Inc., manufacturers of textile machinery, drying equipment, metal shelving and electrical appliances through a subsidiary, Proctor Electric Co. He started work with Proctor & Schwartz in 1896, then called Philadelphia Textile Machinery Co., as an apprentice, later becoming salesman, general manager, vice-president, president and chairman of the board, retiring in April 1958. He is survived by his widow, two sons, Walter M. Jr., president of Proctor Electric Co., and P. Kay, president of Proctor & Schwartz, and two daughters.

MILL NEWS

CONSTRUCTION, NEW EQUIPMENT, FINANCIAL REPORTS, CHARTERS, AWARDS, VILLAGE ACTIVITY, SALES AND PURCHASES

GREENSBORO, N. C.—Burlington Industries here has purchased a nearby tract of land consisting of 131 acres. A residence, lake and out buildings are on the property. Burlington said that definite use of the property had not yet been determined. The land is located off U. S. 220 north of Greensboro. The purchase price was reported to be about $90,000.

NEW YORK, N. Y.—Collins & Aikman, manufacturers of yarn, upholstery and pile fabrics here, showed an increase in net sales of 5½% for the first nine months of 1958, ending November 29. Sales for the first nine months totaled $32,741,000, or an increase of $1,771,000 over the same period a year ago. Net earnings for the period were $684,000 after taxes or $1.22 a share, compared with $745,000 or $1.34 a share in 1957. "While sales increased this year, profit was affected adversely mainly due to the poor results obtained in our automotive product lines. Sales of automobiles were at a ten-year low in 1958. We are reasonably optimistic with regard to the fourth quarter of our fiscal year, and the results should be better than last year," said President Ellis Leach. He added that the company had recently purchased for general corporate purposes 47,300 shares of its stock from Paolina Gerli at $23⅜ per share. Total current assets, working capital and stockholders' equity all increased during the nine months ending November 29, while long term debt diminished. The ratio of current assets to current liabilities was 4.7 to 1.

ATLANTA, GA.—Stockholders of Fulton Bag & Cotton Mills have approved a change in the name of this 90-year-old manufacturer of industrial fabrics to Fulton Cotton Mills Inc. Clarence E. Elsas, president, said the change was made, "to more effectively describe Fulton's present and future operations." The company has embarked on a $2 million modernization development program and is concentrating its efforts to produce and finish industrial fabrics. It also manufactures canvas tents, tarpoulins, salvage covers and other specialty items including furniture pads. In December the company ceased making textile bags in order to concentrate manpower and space on its other operations.

CHARLOTTE, N. C.—The Terrell Machine Co., sales and service agents for American Schlafhorst Co., announces recent receipt of orders and re-orders of Autocopsers, the high speed automatic filling quillers made by W. Schlafhorst & Co. J. P. Stevens, Dan. River, Deering Milliken, United Merchants & Manufacturers, and Burlington Industries are the five largest users of the Autocopser. Among the firms that have placed initial orders and then re-orders are Cheraw (S. C.) Weaving Mill, Russell Mfg. Co., Alexander City, Ala., and Virginia Mills, Swepsonville, N. C. American Schlafhorst states that it has over 3,600 Autocopser spindles running in the U. S. and Canada. These spindles supply over 11,000 looms with a wide variety of filling yarns, including rubberized yarns, cottons, woolens, worsteds, spuns and blends of all types, filament yarns, weaving crepes, fine nylons and Dacrons, heavy tire cords and all types of rayons and acetates. Purchases and installations since the textile show

in Greenville, S. C., include: J. P. Stevens & Co. at Greer, S. C., plant; Dunean Mills, Greenville, S. C.; Whitmire, S. C., plant; and Republic No. 3, Great Falls, S. C.; Deering Milliken Corp. at Farnsworth Mills, Lisbon Center, Me.; Russell Mfg. Co., Alexander City, Ala.; and Pilot Mills, Raleigh, N. C., for a total of 558 spindles.

GREENWOOD, S. C. — Abney Mills here has announced that some 2,000 of the houses located in its mill communities will be offered for sale to employees. The announcement applies to the Brandon and Poinsett plants at Greenville; Grendel and Panola Mills at Greenwood; the Belton, S. C., plant; the Anderson, S. C., plant; Courtenay Mill at Newry; Renfrew Bleachery at Travelers Rest; and the Woodruff, S. C., plant. F. E. Grier, president of Abney, said that the capital freed by the sale of the houses will be "ploughed back" into the plants and equipment.

KANNAPOLIS, N. C.—What is said to be the world's largest heat reclamation system will be installed at Cannon Mills here, by the Patterson-Kelley Co. of East Stroudsburg, Pa. According to P-K engineers, the combined reclaimers can recover enough heat to supply the domestic hot water needs for a city of 600,000 people for one day. Designed to recover heat from waste water and dye liquors, the eight-unit installation will process 3,000 gallons per minute of waste hot water to heat an equal amount of fresh water through temperature rises ranging from 60° F. to 130° F. The reclaimers will provide a total reclamation of 82.9 million b.t.u.'s of heat per hour from waste process fluids. This reclamation, estimated by engineers from both companies, is theoretically equivalent to the reduction of 94,050 pounds of steam (at 100 lbs. pressure), or 2,710 boiler h.p. To be constructed completely of stainless steel, the eight reclaimers will contain approximately 33 miles of tubing, providing 173,500 linear feet of heating surface.

LANDO, S. C.—Manetta Mills here, producer of cotton blankets, suffered a fire last month that resulted in several thousands of dollars of damage, according to General Manager W. S. Simpson. The fire broke out in the finishing room, apparently caused by an electrical shortage. Some 500 persons were temporarily put out of work. Simpson reported that this was the first major fire in the mill's history. The loss was said to be covered by insurance.

SIMPSONVILLE, S. C.—The Simpsonville plant of Woodside Mills here will install 146 new looms, according to Robert Small, president of Woodside. The looms, which are 50-inch Draper D dobbies, will cost $550,000. According to Small, the addition will create some expansion of production and provide more work for carding and spinning employees.

NEW YORK, N. Y. — Preliminary unaudited earnings of Indian Head Mills for the fiscal year ended November 29, 1958, show a total net profit after all charges of $2,331,000 on sales of $43,175,000, compared with total net profit of $1,912,000 on sales of $22,498,000 for the 1957 fiscal year. After preferred stock dividends of

$514,000 paid in 1958, there remained a total net profit of $7.86 per share on the 231,100 shares of common stock outstanding at the year end. In 1957, after preferred stock dividends of $280,000, the total net profit amounted to $7.12 per common share on the 229,000 shares then outstanding. In the 1958 fiscal year, nonrecurring income, after deduction of nonrecurring losses, amounted to $885,000, compared with $382,000 in 1957. These amounts are included in the total net profit figures. No provision for federal income taxes was required in either year due to the availability of tax loss carry overs. The board of directors of the firm has voted to recommend to the stockholders for their approval at the annual meeting of the corporation, February 20, a two-for-one stock split of the common stock. The board has declared the regular quarterly dividend of 31¼ cents per share on its $1.25 cumulative preferred stock, and a quarterly dividend of 37½ cents per share on its $1.50 cumulative preferred stock, both payable on February 1, 1959, to stockholders of record January 15, 1959. It has also authorized the required payment on or before February 1 of $30,756.88 into the $1.25 preferred stock sinking fund, and the required payment on or before February 1 of $51,240.00 into the $1.50 preferred stock sinking fund.

LANCASTER, S. C.—The bleachery of the Springs Cotton Mills here will be the largest dyeing and finishing plant in the world on completion of a $2 million expansion program. New facilities at the bleachery include two mercerizers, three heat treating ovens, a finishing range and a five million-gallon-per-day water filter plant, and a heat reclamation system to increase the present boiler capacity. H. R. Matthewson, vice-president in charge of finishing operations, said that the plant will also be the world's largest sheet and pillow case sewing plant.

NEW YORK, N. Y.—J. P. Stevens & Co. with headquarters here has reported that for the fiscal year ended November 1, 1958, consolidated net sales were $386,330,770 compared with $417,700,159 in the previous fiscal year. Consolidated net earnings for the same period, after provision of $450,000 for state income taxes, were $10,935,310, equavalent to $2.60 per share as compared with $8,909,669 in 1957. The company said that it intends to file a consolidated Federal income tax return showing no taxable income, due to losses in certain subsidiaries and to loss carryovers of other subsidiaries merged during the year. During the same period, the company appropriated $5,400,000 as a special charge for additional write-downs and related operating losses of subsidiaries, which item is not reflected in the net income reported above.

ROME, GA.—Some 150 Dan River Mill houses have been sold to a corporation composed of three Rome businessmen. The corporation is known as the National Home Development Corp. The sale figure was reported to be in the neighborhood of $300,000. Included in the sale was the entire mill village, with the exception of the mill manufacturing plant. The purchasers said that it is their intention to sell the houses to present occupants, making available complete financing. The village includes, in addition to the houses, 175 acres of land and 25 vacant lots. Dan River said the sale was in keeping with its policy of selling mill village houses in order to direct the full attention of the mill to manufacturing.

NEW YORK, N. Y.—During the fiscal year ended September 27, 1958, consolidated net income of Riegel Textile Corp. was $703,000 or 62 cents per share as compared with $2,538,000 or $2.62 a share for the preceding fiscal year. Sales for the year totalled $80,969,000 against $89,486,000 for the previous fiscal year. Capital expenditures amounted to $1,045,000 against $1,916,000 for 1957. Current assets at the end of the fiscal year were $38,832,000 against the previous year's $39,148,000. Current liabilities were $7,580,000 with $7,850,000 listed at the end of the fiscal year 1957. In its annual report to stockholders, the company said that the outlook for the textile industry is more encouraging than it was a year ago.

EASLEY, S. C.—The Foster Plant of Alice Mfg. Co., currently under construction here, will be equipped with Saco-Lowell yarn manufacturing equipment, according to Ellison S. McKissick Jr., president. The new plant will contain 200,000 square feet of space. It will feature a straight-line flow of manufacturing processes and will have 40,000 spindles and 600 looms, producing broadcloth. Included in the new equipment are: 70 Gwaltney spinning frames with 3½" gauge and 276 spindles each; 15 VersaMatic drawing frames, four deliveries each, with 16x14" coilers; 16 10x5 FS-2 roving frames, 120 spindles each, equipped with Pneumastop; 154 18x42" Saco-Lowell anti-friction card coilers; 16 high production combers; four single-process two-beater pickers with automatic feed control; eight F-7 feeder hoppers with No. 15 openers; two F-5 waste feeders; two No. 16 openers with No. 11 condensers; and two No. 12 openers with No. 11 condensers. The plant will employ about 400 at full capacity.

NEW YORK, N. Y.—Reeves Bros. Inc. showed a net profit of $339,128 or 38 cents a share for the second fiscal quarter ended December 27, compared with $31,720 or three cents a share in the comparable period of the previous fiscal year. Net sales for the quarter totalled $15,085,228 as compared with $13,490,597 in the previous period. In the six months to December 27, net profit was $119,337 or 10 cents a share as compared with earnings of $67,560 or 6 cents a share as compared with the same six-month period in 1957. All 1957 figures are computed after giving effect to a net loss of $117,293 resulting from the sale of the firm's Worth Street property.

BESSEMER CITY, N. C.—Gambrill & Melville Mills Co., producer of unbleached wide sheeting here, announced last month that it was granting an across the board wage increase to its 230 employees. According to Sydney P. Munroe, the firm's president, the voluntary increase will average five cents an hour. The new rates went into effect December 29.

OPELIKA, ALA.—The annual meeting of stockholders of the Opelika Mfg Co. has been told that the current pace of business is quicker than in many years. "The flow of orders is very gratifying," according to Charles L. Cohen, chairman of the board. He indicated that January is maintaining the pace of the quarter ended December 31, 1958, which was up 9.4%. Volume since the 1959 fiscal year started October 1, 1958, indicates a better profit than in 1958. Cohen said that figures on fiscal first quarter profits reflect an increase of about 5.3%.

WINNSBORO, S. C.—Improving automotive production and continuing success in research are major factors why textile industry sales and profit should show increased gains in 1959, said William E. Clark, vice-president and general manager, textile division, U. S. Rubber Co., here, in viewing industry and his own company prospects for the coming year. "The sharp decline in automotive production in the early part of 1958 affected practically every segment of the textile industry and the upturn which had been anticipated was delayed until mid-year. Since last May, however, improvement in sales has been continuing at an accelerated rate." Clark said his company's textile division sales for 1959 should continue to show improvement particularly as a result of increased development work in the introduction of wool and wool blend yarns, textured set nylon, and nylon acetate yarns for the floor covering trade.

J. Spencer Love Reviews 1958

Burlington Industries' 1958 fiscal year ended with inventories generally at minimum working levels and prices for most of its products showing some improvement from the lows reached in the early Spring, according to Spencer Love, chairman of the nation's largest textile organization. In a statement to stockholders concerning the fiscal year ended September 27, 1958, Mr. Love reported that, "While 1958 was a year of general recession, the company's financial position was substantially improved, although earnings and sales were down from the previous year."

"It is interesting to note," Mr. Love stated, "that the balance sheet is the strongest it has ever been with working capital at an all-time high. Although earnings were unsatisfactory, it is obvious that Burlington has fortified its position during the year."

The general recession during the early part of 1958, according to Mr. Love, came at a time when many felt that the industry was about to witness a broad improvement: "Monetary and other uncertainties deterred customer buying and encouraged determined efforts to hold inventories at minimum levels all through the chain of production and distribution," he said.

The company's annual report stressed the importance of Burlington's research and development program, stating that, "More has probably been accomplished by the textile industry within the last 20 years in the way of scientific advancement of methods, fiber performance and development of utilitarian values than was accomplished in the preceding two centuries." The report pointed out that "Textile mill products today sell for about 10 to 15% less than they did ten years ago—a record of reduced costs and increasing productivity that few other industries can boast."

Broad Woven Cotton Production Down

Cotton broad woven fabric production in the third quarter of 1958 was 4% below the previous quarter and 6% lower than the third quarter 1957 level. Production of duck and allied fabrics increased 4% from the previous quarter level. The other major fabric classes showed decreases ranging from 1 to 9%. Fine cotton fabrics and other woven cotton fabrics and specialties showed increases of 8 and 6%, respectively, from the 1957 third quarter level. Production for the remaining fabric classes decreased 1 to 12% from the 1957 third quarter level.

U. S. Cotton Consumption Reported

Consumption of cotton in the U. S. in November totalled 672,838 bales against 833,366 bales in October and 651,599 bales in November of 1957. Cotton-growing states consumed 646,148 bales of the November total and New England consumed 23,435 bales. Daily average consumption in the U. S. was 33,642 bales compared with 33,335 in October and 32,580 in November of the previous year. Total stocks were shown at 13,338,928 bales as compared with 11,612,182 in October and 12,797,783 in November 1957.

The U. S. consumed 6,755 bales of foreign cotton during the month. This compares with the consumption of 7,907 bales in October and 6,301 in November 1957. Man-made fiber consumption by the U. S. totalled 41 million pounds as compared with 48 million in October and 36 million in the previous November.

Some 21 million cotton spindles were reported in place in November with roughly the same number shown in place in October and November. The number of active spindles remained about the same for all three periods. The spindles were operated 9.2 billion hours in November against 11.4 billion hours in October and 9 billion in November 1957.

A.S.Q.C. To Hold Annual Meeting In Charlotte

The American Society for Quality Control's Textile Division will hold its annual conference January 29-31 at the Hotel Charlotte, Charlotte, N. C. General chairman for the conference is Larry I. Horner, Celanese Corp. of America. Program chairman is John H. Reynolds also of Celanese. Invited papers to be delivered are: "Professional Development in Quality Control," C. E. Fisher, Bell Telephone Laboratories, New York City; "Establishing a Quality Control Program in a Textile Finishing Plant," Ernest G. Freudenthal, Werthan Bag Corp., Nashville, Tenn.; "Skip Sampling—A New Economical Method For Statistical Control of Sewing Room Quality," Robert E. Heiland, Kurt Salmon Associates, Washington, D. C.; "Improvement and Control of Quality of Cotton Textile Products," L. L. Heffner, U.S.D.A., North Carolina State College, Raleigh; "Fiberglas Quality Control," J. K. Park, Owens-Corning Fiberglas Corp., New York City; "The Meaning of Textile Quality Control Tests," Braham Norwick, Beaunit Mills, New York City; "The Military Quality Assurance Program for Clothing, Textiles, Footwear and Related Items," Lt. Col. Bernard P. Coburn, Military Clothing & Textile Supply Agency; and "Productivity Measure-

SUMMARY OF PRODUCTION BY CLASS OF FABRIC
(Thousands of linear yards)

Type of Goods	July September 1958 (preliminary)	April-June 1958	July-September 1957	Percent Change July-September 1958 from— April-June 1958	Percent Change July-September 1958 from— July-September 1957
COTTON, BROAD WOVEN GOODS, TOTAL	2,105,467	2,201,745	2,247,847	—4	— 6
Duck and allied fabrics	48,520	46,499	48,857	+4	— 1
Sheeting and allied coarse and medium yarn fabrics	538,606	551,570	576,586	—2	— 7
Print cloth yarn fabrics	778,389	831,664	887,548	—6	—12
Colored yarn fabrics	112,666	115,505	127,250	—2	—11
Towels, toweling and dishcloths	127,386	132,709	134,868	—4	— 6
Napped fabrics, blankets and blanketing	44,813	49,206	47,886	—9	— 6
Fine cotton fabrics	339,642	358,171	315,806	—5	+ 8
Other woven cotton fabrics and specialties	115,445	116,421	109,046	—1	+ 6

ments," Prof. Harold W. Martin, Rensselaer Polytechnic Institute, Troy, N. Y.

Papers on basic statistical quality control concepts to be presented include: "Fundamentals of Quality Variation," K. K. Edgar, Henderson, Lindsay & Michaels, Greenville, S. C.; "Quality Control Charts," Prof. D. S. Chambers, The University of Tennessee, Knoxville; "Analysis of Variance —Tool for Trouble Shooting," Prof. Merrill C. Palmer, Clemson (S. C.) College; "Sampling Textile Material," Dr. Robert J. Hader, N. C. State College; and "Non-Parametric Statistics," Dr. Dudley J. Cowden, University of North Carolina, Chapel Hill.

Study groups on fabric imperfections, cotton raw stock, picker laps, sliver and roving, garment manufacture, and staple fiber yarn will also be held. The final morning of the meeting will be devoted to a tour of industrial installations near the city.

Hamburger To Receive A.S.T.M. Medal

Dr. Walter J. Hamburger, director and treasurer of Fabric Research Laboratories, Dedham, Mass., has been named the 1959 recipient of the Harold De Witt Smith Memorial Medal from Committee D-13 of the American Society for Testing Materials. The presentation will be made on Thursday, March 19 at the committee's Spring meeting at the Sheraton-McAlpin Hotel in New York City. Dr. Hamburger is an Olney medalist of the American Association of Textile Chemists & Colorists. He is also a past national councilor for that association and is a past president of The Fiber Society.

Georgia Textile Group To Meet In April

W. C. Vereen Jr., president of Moultrie Cotton Mills and president of the Cotton Manufacturers Association of Georgia, has announced the selection of the Diplomat Hotel and Country Club, Hollywood Beach, Fla., as the site of the association's 1959 convention, April 22-25. The 1958 convention of the association was held in Boca Raton, Fla., following two successive conventions in Nassau, Bahamas.

Southeast Cotton Spindles Decrease

The number of cotton system spindles in place in the Southeast decreased in the first nine months of 1958 as compared with the same period in 1957, according to the U. S. Department of Commerce. Some 17,481,000 spindles were in place on September 27, 1958, against 17,602,000 in place on September 28, 1957. There was also a drop in the number of spindles active on 100% cotton. On the last working day of the nine-month period, 15,345,000 active spindles were in place in the Southeast. Total at the end of the first nine months of 1957 was 15,693,000.

The Southeast states and the change in the number of spindles in place between the two periods for each was: Alabama, down 2%; Georgia, down 2%; North Carolina, down 1%; South Carolina, up 8%; Tennessee, down 1%. The change by states in the number of active spindles was: Alabama, down 18%; Georgia, down 2%; North Carolina, down 1%; South Carolina, down 1%; Tennessee, down 2%.

Cotton consumption for the Southeast was down to 5,333,212 running bales for the first nine months of 1958 from the 1957 total of 5,695,227 bales for the same period, a drop of 6%. Cotton on hand at the end of the first nine months of 1958 totalled 3,737,933 bales—a drop of 12% from the total of 4,245,375 blaes on hand at the end of the first nine months of 1957.

The change by states in cotton consumption was: Alabama, down 7%; Georgia, down 11%; North Carolina, down 6%; South Carolina, down 3%; and Tennessee, down 3%. The change in cotton stocks by states was: Alabama, down 24%; Georgia, down 21%; North Carolina, down 9%; South Carolina, up 22%; Tennessee, down 22%.

Dent To Head S. C. Textile Group

Frederick B. Dent, president and general manager of Mayfair Mills, Arcadia, S. C., has been named president of the South Carolina Textile Manufacturers Association to succeed the late P. S. Bailey of Clinton, S. C. Mr. Dent's elevation from the vice-presidency came at a recent meeting of the group's board of directors at the Spartanburg Country Club.

Textile Mill Employment Total Declines

The Census Bureau has reported that textile mill employment figures for 1957 show a decline to 992,000 from 1,044,000 in 1956. The total textile payroll for 1957 was $3.19 billion. The 1956 payroll figure was not reported. Broken down by various industries the figures show: woolen and worsted manufactures—88,000 in 1957 and 97,000 in 1956; woolen and worsted fabrics— 57,000 and 66,000; yarn and thread mills—103,000 and 107,000; thread mills—13,000 and 14,000; yarn mills, cotton system —78,000 and 81,000; broad woven fabrics—344,000 and 368,000; cotton broad woven fabrics—267,00 and 286,000; synthetic broad woven fabrics—77,000 and 83,000; narrow fabric mills—27,000 and 28,000; and finishing (except wool)—78,000 and 79,000.

Textile Chemicals To Be Discussed

"Textile Chemicals—Markets and Technology" is the subject of the Winter meeting of the Chemical Market Research Association, to be held February 18-19 at the Dinkler Plaza Hotel, Atlanta, Ga. Future trends in fabrics and fabric applications and their effects on textile chemical markets will be covered, with particular emphasis given the need for creative product planning in the development of chemicals that can contribute to this future growth.

Speakers discussing the segments of the textile chemical market in which they specialize are: Ray L. Currier, Columbia Southern Chemical Corp., "Inorganic Chemicals, Their Place and Expected Growth"; W. C. Caldwell, president of Wica Chemical Co., "The Role of Organic Chemicals in Textile Finishing"; Carl A. Bergman, General Aniline & Film Corp., "Surfactants—Present and Future"; and George O. Linberg, vice-president of Synthron Corp., "The Textile Finishers' Challenge to the Chemical Industry."

Actual case histories illustrating specific market research and development techniques will be presented by James P. Casey, A. E. Staley Mfg. Co., discussing the development of a new starch chemical; and W. T. Rossiter, Dow-

Corning Corp., who will show how market research was used to map the distribution of silicone specialties to the textile industry.

A panel moderated by S. D. Koonce, American Cyanamid Co., and consisting of George Rieger, Amoco Chemical Co.; C. W. Bendigo, Werner Textile Consultants; John T. Fosdick of John T. Fosdick Associates; and George Buck, National Cotton Council of America, will evaluate and add their suggestions on the techniques used.

E. J. Forio, senior vice-president of the Coca-Cola Co. and president of the Georgia State Chamber of Commerce, featured speaker at the luncheon, will point out the role of market research in business growth. The dinner speaker, Harry Riemer, former editor of the *Daily News Record*, will talk on the topic—"1984." Plant tours through Dundee Mills, Griffin, Ga., Fulton Bag & Cotton Mills, and the A. French School of Textiles of Georgia Tech, Atlanta, have been arranged for Wednesday afternoon, February 18.

Anderson, Clayton Moves Sales Office

Anderson, Clayton & Co. of Houston, Tex., is making Memphis, Tenn., the site of its central domestic sales office, it has been reported by W. W. Deupree, manager. The company's Atlanta operations are being transferred to Memphis and Marvin A. Woolen, recently named as vice-president in charge of the Atlanta office, has been named to head the operations in Memphis. Deupree will be in charge of sales and the handling of Memphis territory cotton, A. L. Woodside will continue in the sales department, specializing in Memphis and El Paso cotton. W. W. Beckman Jr., will transfer from the Atlanta office to Memphis. The transfer will be completed by Spring.

A.C.M.I. Course On Cotton Fiber Testing

The American Cotton Manufacturers Institute has scheduled a series of classes on cotton fiber testing for this year at its Clemson, S. C., laboratory, John T. Wigington, director of A.C.M.I.'s technical service division, has announced. The classes are designed to train mill laboratory workers in the techniques of cotton fiber testing. Four classes will be held: February 9-March 20; April 20-May 29; August 10-September 18; and October 26-December 4.

National Cotton Council Meeting Set

The 21st annual meeting of the National Cotton Council of America will be held February 9-10 at the Hotel Dinkler Plaza, Atlanta, Ga. The meeting will feature an address by Senator Richard B. Russell (D., Ga.) and a discussion of "The Psychology of Consumer Acceptance," by Dilman M. K. Smith, vice-chairman of the board of Opinion Research Corp.

New York Textile Merchants Meet

Herman E. Talmadge, U. S. Senator from Georgia and former governor of that state, will be the guest of honor and speaker at the annual dinner of The Association of Cotton Textile Merchants of New York, to be held Thursday evening, January 29, at the Hotel Plaza, New York. Senator Talmadge will talk on national affairs and textiles as affected by government policy.

Frank M. Leslie of Leslie, Catlin & Co., chairman of

the association's dinner committee, will introduce the speaker. Linsley V. Dodge of Berkshire Hathaway Inc., and Joseph H. Sutherland of J. P. Stevens & Co., are committee members.

A.C.M.I. Convention, March 19-21

The tenth annual meeting of the American Cotton Manufacturers Institute will be held March 19-21 at the Palm Beach Biltmore Hotel, Palm Beach, Fla. A.C.M.I. President Halbert M. Jones of Laurinburg, N. C., reports that a board of directors' meeting will precede the convention proper on March 18. Officers for the coming year will be elected on the final day of the meeting. If precedent is followed, James A. Chapman of Spartanburg, S. C., will become president. A.C.M.I. Second Vice-President J. M. Cheatham, president of Dundee Mills Inc., Griffin, Ga., will move up to first vice-president.

Carolina Yarn Scholarship Awarded

Bryson Talmon Dickerson of Oxford, N. C., a senior in the School of Textiles at North Carolina State College, has been named the 1959 recipient of a $300 scholarship sponsored by the Carolina Yarn Association. The association awards a scholarship annually to a junior or senior at the school.

Cannon Mills To Use Television

Cannon Mills, Kannapolis, N. C., is plunging into television with its white sales promotion, according to a television trade magazine. The report said the company will spend about $1 million. The commercials will carry local department store credits but Cannon is reportedly picking up the entire bill.

Southeastern A.A.T.C.C. Elects Officers

R. B. Hallowell, Coats & Clark Inc., Albany, Ga., has been elected the new chairman of the Southeastern Section of the American Association of Textile Chemists & Colorists at its December meeting held in Atlanta. Hallowell succeeds William B. Griffin, Dexter Chemical Corp. Other officers elected for 1959 are: W. B. Ames, Jefferson (Ga.) Mills, vice-chairman; Warren E. Tiller, Tennessee Corp., re-elected secretary; and Leon Tigler, Eagle & Phenix Division of Reeves Bros. Inc., Columbus, Ga., treasurer.

Capital Spending Reported Same As 1958

Textile manufacturers expect little change in their first quarter 1959 spending for capital equipment, in comparison of 1958 first quarter spending, according to reports from the Commerce Department and the Securities and Exchange Commission. The agencies' joint survey indicates textile mills expect to spend $290 million for new plants and equipment in the first three months of 1959. Last year's first quarter saw the mills buy capital equipment valued at $300 million. The mills spent approximately $310 million in the final quarter of 1958.

15% Of I.C.A.'s Textile Funds Spent In U. S.

The International Co-Operation Administration spent 15% of its textile funds during fiscal 1958 in the U. S. Of this amount about 70% was spent for synthetic textiles.

I.C.A. funds paid for $68 million worth of textiles during the year. Of this amount nearly $10.5 million worth was procured in the U. S. This compares with $7.2 million worth, or 7%, procured in the U. S. during 1957.

The countries in which the greatest part of the procurement took place for fiscal 1958 and the total since April 3, 1958, broken down by categories shows: total fabricated basic textiles—Japan $42.3 million, $179.7 million; artificial fibers, Japan, $747,000 and $1.6 million; cotton yarns, Japan, $2.5 million and $16 million; wool yarns, Belgium, $175,000 and British territories in Asia, $2.1 million; synthetic yarns, Japan, $3.7 million and Italy, $16.2 million; other yarns, Japan, $190,000 and Italy, $581,000.

Reeves Bros. To Produce Bondyne Fabrics

Reeves Brothers Inc., New York City, has announced that it will begin production of a new line of Bondyne apparel fabrics. Reeves is the first firm in the U. S. to make these fabrics under special licensing agreement with the Bondyne Fabrics Division of Greenwood (S. C.) Mills, originator of the new Dynel textile blends.

According to H. C. Hoffman, Reeves vice-president, the company will weave a variety of 56-inch and wider plain and fancy fabrics in the greige on its Draper and box looms. These include flannel, tropical, gabardine and worsted-effect styles for men's and boys' slacks and suitings, and women's skirts and sportswear with emphasis on fancies in the tradition of worsted styling.

Carolina Textile Manufacturers Optimistic

A recent survey of textile manufacturers in the Carolinas has shown a generally optimistic viewpoint for 1959. The survey, conducted by the American Commercial Bank of Charlotte, showed that 77% of the textile men interviewed foresaw better sales in 1959, as compared with 1958, and 68% forecast better earnings. The results of the survey were presented before a recent meeting of the Greater Charlotte Textile Club by B. W. Barnard, senior vice-president and executive trust officer of the bank.

Significantly, not one of the textile men thought sales and earnings would be worse in 1959, although 23% thought the sales picture might be the same as 1958 and 32% thought earnings would be the same. The bank's report on 1958 textile operations as compared with 1957 showed that 45% of those reporting had better sales records and 55% had better earnings records. The report showed that 36% of the textile operators reporting had sales records in 1958 that were worse than in 1957 and 32% had poorer earning records. The remainder (18% for sales and 14% for earnings) indicated that their 1958 figures were the same as 1957. The area covered by the survey was described as roughly extending from Greensboro, N. C., to Greenville, S. C., a 100 to 150-mile wide belt which contains the greater proportion of Southern spindles and looms.

Industry Plugs For Lower Quota

U. S. textile manufacturers are still plugging for a more restricted Japanese cotton textile and apparel export quota program. General opposition was registered by the industry to the latest reported proposal calling for an increase in

the over-all quota from the present 235 million yards to 245 million yards. The Japanese are calling for an increase to 249.5 million square yards. Also proposed by the Japanese is a substantial increase in ginghams and velveteens, which the American proposal would leave unchanged, and elimination of specific ceilings on combed yarn fabrics.

Robert C. Jackson, president of the American Cotton Manufacturers Institute, said that several compelling factors made it inconceivable to the industry that the Japanese government would consider doing anything less than a reasonable reduction in a textile quota to the U. S.

The factors cited by Jackson were: a drop in U. S. production of 5 to 10% below the 1956 level, when the quota was developed; a sharp rise in imports from other countries, particularly Hong Kong; and talk about lowering the U. S. export prices on cotton, giving wider advantage to foreign manufacturers.

Jackson said that recent Senate hearings showed clearly that the U. S. textile industry is being forced to carry substantially more than its just share of the economic impact of the government's international political policy. Any thought of adding further to this burden by increasing the Japanese quota, he continued, is beyond comprehension.

Also acting as spokesmen for the industry were W. J. Erwin, president of Dan River Mills, Danville, Va., and chairman of the A.C.M.I. foreign trade committee; and Seabury Stanton, chairman of the executive board of Berkshire Hathaway Inc., New York City, and chairman of the Northern Textile Association board.

Design Engineering Show Set

The Design Engineering Show, the exposition devoted to research and development, will return to Philadelphia, where the first show was held in 1956. It is scheduled for Convention Hall, in Philadelphia, May 25-28, inclusive. About 400 companies are expected to exhibit, according to Clapp & Poliak Inc., producers of the event.

Coinciding with the show, the fourth annual Design Engineering Conference also will be held at Convention Hall. The conference is sponsored by the machine design division of the American Society of Mechanical Engineers. In addition to the first show in Philadelphia in 1956, the show has been held in New York in 1957, and in Chicago, in 1958. At this last show, there were 411 exhibiting companies and over 18,000 in attendance.

Exhibits, which are prepared to aid in the designing of new end products, include mechanical components, power transmission equipment, electrical and electronic components, metals, non-metallic materials, fasteners and adhesives, finishes and coatings, shapes and forms, hydraulic and pneumatic components, and various engineering equipment and services.

Synthetic Broad Woven Production Up

Production of man-made fiber and silk broad woven goods in the third quarter of 1958 totalled 585 million linear yards, an increase over the previous quarter's total of 580 million and over the third quarter 1957 total of 558 million. Rayon and acetate broad woven goods production in the third quarter totalled 412 million linear yards against 414 million yards in the second quarter

and 355,210 in the third quarter of 1957. Goods of 100% filament yarn accounted for more of the rayon and/or acetate total than any other group of fabrics with a total of 173 million yards. Fabrics of 100% spun yarn were second with a total of 111 million.

Man-made fiber fabrics other than rayon and acetate showed a total production of 162 million linear yards against 157 million in the second quarter and 194 million in the third quarter of the previous year. The production of silk and other broad woven fabrics, not elsewhere classified, totalled 10 million linear yards, an increase over the previous quarter's total of 9.7 million and the third quarter 1957 total of 8.8 million.

Jute Substitute Being Developed

The production of Kenaf, a tropical fiber that is expected to compete for the multi-million dollar world jute market, is on the verge of a break-through as the Western Hemisphere's newest industry, according to North Atlantic Kenaf Corp., Havana, Cuba. The imminent break-through stems from the commercial development of the world's first field harvester-ribboner which eliminates the principal technical problem that has held back the progress of the industry.

Kenaf is a soft vegetable fiber similar to jute fiber in appearance. It comes from the stalk of a fast-growing, hollyhock-like plant which can be grown in almost any tropical, or sub-tropical, climate. Jute, grown almost entirely in Pakistan and India, ranks second only to cotton as the world's most valuable commercial fiber.

Cotton Use Declines

A total of 8 million bales of cotton was consumed in the U. S. during the 12 monthly reporting periods ended July 31, 1958. During this period exports of cotton amounted to 5.7 million bales. The revised figure on the cotton "carry-over" as of July 31 is 8.7 million bales. This represents a decline of 2.6 million bales from the July 31, 1957, carry-over of 11.3 million bales and a decline of 5.8 million bales from the July 31, 1956, carry-over of 14.5 million bales.

During the year ended July 31, consumption of linters amounted to 1.1 million bales. Bleachers consumed 0.6 million bales while other consumers accounted for 0.6 million bales. Stocks of linters at the end of the season amounted to 0.8 million bales and were virtually unchanged from the stock level at the end of July 1957.

Consumption of man-made fiber staple by mills with cotton system spindles amounted to 432 million pounds. Of this total 359 million pounds were rayon and/or acetate. All figures are from the U. S. Department of Commerce.

Width Of Broad Woven Cotton Increases

During the period from 1939 to 1958, the average width of cotton broad woven fabrics increased 9%, according to the U. S. Department of Commerce. In 1939, the average linear yard of cotton fabrics included 1.07 square yards of material. This ratio increased to 1.10 in 1947 and 1.17 during the first quarter of 1958.

The largest proportionate change was reported for fine cotton fabrics. In 1939, the average linear yard of this material included 1.07 square yards of fabric. By 1958,

this ratio had increased to 1.28 square yards per linear yard.

With the increase in fabric widths, there was an increase in the weight per linear yard. This was shown by the decline of linear yards per pound of fabric produced. In 1939, a pound of fabric was the equivalent of 3.58 linear yards. In 1947 this figure declined to 3.30; in 1954 to 3.16; and in the first quarter of 1958 to 3.09.

The composite effect of the increases in fabric widths and weight per linear yard is measured by the number of square yards per pound of fabric produced. In 1939, 3.82 square yards of fabric weighed one pound. This was reduced to 3.64 square yards in 1954 and 3.61 in 1958. This trend to heavier fabrics was not uniform and the opposite movement occurred for some categories between 1939 and 1958 or between 1947 and one of the other years surveyed.

Fiber Consumption Down In 1957

The end-use consumption of all textile fibers in 1957 totaled 6,376,900,000 pounds, according to the *Textile Organon,* statistical bulletin of the Textile Economics Bureau Inc. This compares with end-use consumption of 6,475,700,000 pounds in 1955 and 5,614,500,000 pounds in 1949. These data are made available as the result of an *Organon* study of the consumption of the major textile fibers in 102 end uses annually over the 1949-1957 period.

Man-made textile fiber consumption in the latest year (1957) amounted to 1,685,900,000 pounds or 26½% of the total, and cotton consumption came to 4,085,400,000 pounds or 64% of the total of these fibers.

The survey made by the bureau, which brings up to date previous surveys of the same type done by The Du Pont Co., reveals that man-made fibers have strengthened their position in the constant competition among textile fibers. It utilizes the valuable earlier records of The Du Pont studies, as well as the fiber distribution patterns of all domestic man-made fiber producers. In addition, the valuable end-use reports of the National Cotton Council and production data of the U. S. Census Bureau were fully utilized.

The bulletin points out that the ideal place to measure the poundage end-use of fibers is at the point nearest the final consumer. For apparel, this is generally at the garment cutting level. For example, the poundage of fiber in women's dresses actually cut is a more significant figure than yardage or pounds of fiber in fabric available and suitable for ultimate use in women's dresses.

A true picture of textile inter-fiber competition, the *Organon* notes, is not on a simple pound-for-pound basis. For the last several years, the *Organon* has translated consumption figures into so-called "utility poundage," a concept wherein processing losses, fabric weight, strength and deterioration factors of the man-made fibers are stacked up against those of the natural fibers to reflect the real utilization of each pound of fiber. Under this concept, according to the *Organon,* the non-cellulosic man-made fiber consumption data should approximately be doubled to reflect appropriately their higher utility poundage.

In 1949, man-made fibers, which were then predominantly rayon and acetate, constituted 20% of all fibers consumed in the end uses covered by the *Organon* survey, while in 1957 man-made fibers made up 26½% of the total. By the latter year, however, the non-cellulosic and textile glass fibers were utilized to the extent of 517,900,000

pounds, or 8% of total fibers compared with only 88,800,000 pounds or 1½% in 1949, while rayon and acetate consumption at 1,168,000,000 pounds in 1957 made up 18½% of the total, compared with 1,023,700,000 pounds or a similar 18% in 1949.

Cotton in 1949 accounted for 67% of all textile fibers with consumption placed at 3,767,100,000 pounds. Actual cotton consumption increased to 4,085,400,000 pounds in 1957 but its share of the total fell to 64%. Wool consumption, amounting to 734,900,000 pounds in 1949 or 13% of the total, fell to 605,600,000 pounds or 9½% of the total by 1957.

Home furnishings absorbed the greatest poundage of fibers in 1957 with a consumption of 1,515,500,000 pounds. In this category, cotton was used to the extent of 980,300,000 pounds, wool 159,900,000 pounds and man-made fibers 375,300,000 pounds. In 1949, the comparative figures were: total fibers 1,066,100,000 pounds, cotton 760,800,000 pounds, wool 219,800,000 pounds and man-made fibers 85,500,000 pounds.

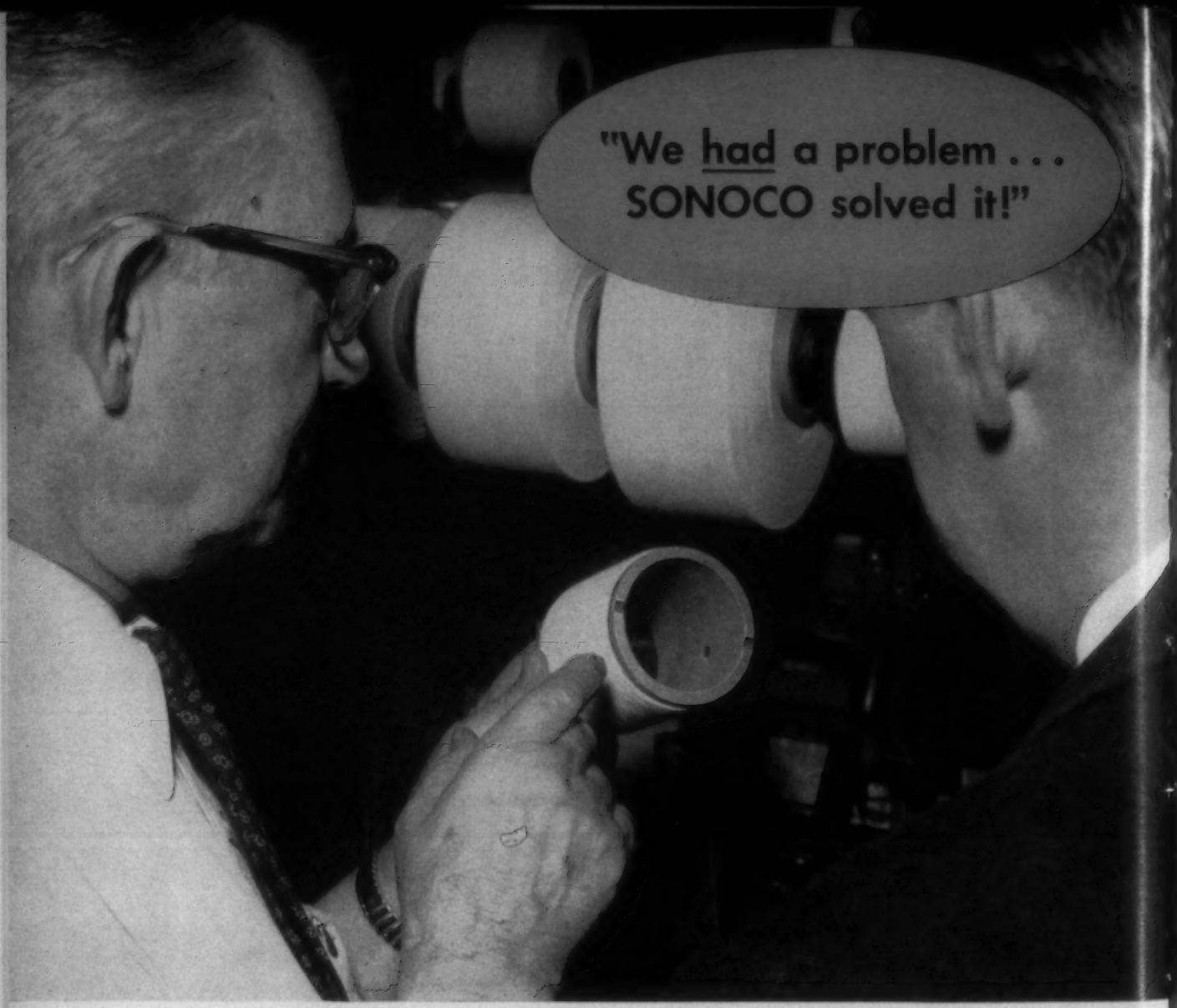
In the industrial uses category, where the greatest poundages of man-made fibers were consumed in 1957, an anomaly has resulted in that the total poundage of all industrial fibers has general decreased relative to the expanding industrial sector of the economy. This trend points up the greater utility poundage of the man-made fibers in industrial applications, notably in the tire industry.

The *Organon* points out that the following factors affecting fiber consumption should be considered: First there is a trend to lighter apparel which means not only the use of cloth weighing less per yard but also fewer yards to the average garment in many cases. Then there is the "color-style" elements in such items as women's dresses which leads to obsolescense of clothing before its full wear life is realized. Third is the different ways in which consumers use certain apparel items, as for example, the "sport shirt"; years ago it was worn almost entirely for casual wear, but today it is also widely used in place of a work shirt. Fourth, the shortening of the work week, in both hours and days, and a higher standard of living has increased the demand for leisure wear clothing, apparently without a proportionately lower demand for business wear items. Finally, there have been gains in fiber consumption in children's wear, which relates to the increase in that segment of the population.

Woolen And Worsted Consumption Rises

The November weekly average rate of fiber consumption on the woolen and worsted systems was 2% above the October rate and 22% above that of November 1957. The weekly average raw wool consumption during November was 7,465 thousand pounds (scoured basis) or 6% above the October level and 38% above that of November 1957. Consumption of apparel class wool was 4% above the October level and 29% above that of November of last year. Consumption of carpet class wool was 9% above the rate of the preceding month and 53% above the November 1957 rate.

Consumption of fibers other than raw wool averaged 6,151 thousand pounds per week, or 2% below the October average but 7% above November 1957. These figures include production of man-made fiber tow converted to top without combing. Total fiber consumption also includes this top production.



THE NEED: One-time-use cheese core for cotton yarns

An economical, lightweight, one-time-use cheese core for stocking and shipping was needed by the textile industry. This requirement was discussed with Sonoco and the production of a suitable core was assigned to research specialists and engineers. The result was a highly durable spiral core, especially punched to seat properly on the spindle, and notched on one end to serve as a guide for instantaneous positioning in respooling. This core eliminates mill inventory and loss or damage associated with more expensive carriers; however, equal performance in spooling is assured. For yarn identification, these cores are available with printed surfaces or colored inside or outside wraps.

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MEMBER: Business Publication Audit of Circulation and National Business Publications Inc.

P. S. Bailey, 1904-1958

THE textile industry lost one of its most esteemed members last month in the unexpected passing of P. Silas Bailey, president and treasurer of Clinton and Lydia Cotton Mills at Clinton, S. C. Born into a textile family, Mr. Bailey had been active in the industry since his graduation in 1926 from Presbyterian College. He was named vice-president of Clinton-Lydia in 1938, and was named president and treasurer in 1948. At the time of his death he was serving as president of the South Carolina Textile Manufacturers Association, as a director of the American Cotton Manufacturers Institute, and as a trustee of the Institute of Textile Technology. In his 32 years in the industry he proved himself not only an astute business man but more importantly a warm and genuine friend held in highest regard by his associates, his employees and his community. His interest in civic affairs, in education and in the promotion of the textile industry won him prominence and respect in each of those fields, and his enthusiastic support of activities in their behalf will be very keenly missed.

Our Own Government Is Using Our Own Money To Cut Our Own Throat

ONE of our yarn salesmen recently sent me a sample of some cotton yarn manufactured in Mexico and sold in southern California at ten cents a pound under our cost. Even the best financed yarn mill would go completely broke in a few months if it sold its yarn production ten cents a pound under cost. Here at Avondale, we have achieved a low unit cost for a high quality product compared with other American mills.

How does the Mexican mill come by a cost so much lower than ours? The first explanation that comes to mind is that the Mexican wage scale is about one-third ours. I doubt, though, that this is the real explanation. My limited observation of Mexicans leads me to believe that we do about three times as much work in an hour as they do—and if this is correct, they would have no advantage in labor cost. The real advantage the Mexican mill has is in the price it pays for its cotton compared to the price the American mill pays. This price advantage in respect to cotton runs in favor of all foreign mills.

Our government will sell American cotton for export to any country outside the Iron Curtain for 20% less than it will sell the same cotton to an American mill. This means we pay 25% more than the foreign mill pays for the same cotton. This is an intolerable situation and is made more intolerable by two other practices which few people know about. One of these is the sale of surplus cotton under Public Law 480. This law provides that the foreigner not only gets the cotton at a 20% discount, but he pays the remaining 80% in nonconvertible foreign money which can only be spent in the country which issued it. This money isn't worth its face value, so the foreign mill actually buys the cotton at a much larger discount than is apparent.

The other practice which materially lowers the cotton cost to the foreign mill is known as the barter program. This program authorizes our government to "barter" agricultural commodities for "strategic and critical materials produced abroad." This is how that program works: An importer in this country gets an option on something abroad — for instance, ferrochromium — and offers it to Uncle Sam. If Uncle Sam buys it, the importer incurs an obligation to export a specified amount of some surplus agricultural commodity—for instance, cotton. Since the importer is a metals man and not a cotton man, he makes a deal with a cotton exporter to relieve him of this obliga-

tion. He pays this exporter what the trade calls a "barter discount," which ranges up to 10% of the value of the cotton. A portion of this barter discount is then passed on to the foreign mill by way of a cheaper price in order to complete this fantastic operation.

You might wonder how the man who sold Uncle Sam the ferrochromium got enough for it to afford this large discount on the cotton he took in payment. There are several possibilities other than plain price padding. For example, Uncle Sam doesn't seem to require the same quality of ferrochromium for his stockpile that the principal steel companies require. Then there is the question of the metals that are now subject to import quotas. If acquired by the barter route, they can be brought into this country outside the quota. With the American price for them 20 to 30% over prices abroad, the importer can sell them to Uncle Sam below the American price and still have enough margin to pay the barter discount and provide a profit.

Who picks up the check, first, for the 20% price reduction we make in our cotton, then for the further loss we sustain by taking nonconvertible foreign money for the remaining 80%, and then for the loss involved in the barter discount that I have just mentioned? It is perfectly apparent that all of these losses are paid by the American taxpayer, including taxpayers who look to the American textile industry for a livelihood. Our own government is using our own money to cut our own throat.

(The foregoing analysis of one of the textile industry's severest headaches comes to us from the pen of J. Craig Smith, president and treasurer of Avondale Mills. It was written for the January 12 issue of The Avondale Sun.)

TEXTILE INDUSTRY SCHEDULE

— 1959 —

Jan. 26-29 (M-Th)—**PLANT MAINTENANCE & ENGINEERING SHOW**, Public Auditorium, Cleveland, Ohio.

Jan. 26-29 (M-Th)—**INTERNATIONAL HEATING & AIR CONDITIONING EXPOSITION**, Convention Hall, Philadelphia, Pa.

Feb. 9-10 (M-Tu)—21st annual meeting, **NATIONAL COTTON COUNCIL**, The Dinkler Plaza Hotel, Atlanta.

Mar. 12-13 (Th-F)—Annual Southern Spring meeting, **TEXTILE ENGINEERING DIVISION, A.S.M.E.**, The Clemson House, Clemson, S. C.

Mar. 19-20 (Th-F)—Spring meeting, **SOUTHERN TEXTILE METHODS AND STANDARDS ASSOCIATION**, Clemson House, Clemson, S. C.

Mar. 19-21 (Th-Sa)—Annual convention, **AMERICAN COTTON MANUFACTURERS INSTITUTE**, Palm Beach Biltmore Hotel, Palm Beach, Fla.

Mar. 26-27 (Th-F)—Spring meeting, **TEXTILE QUALITY CONTROL ASSN.**, North Carolina State College, Raleigh, N. C.

Apr. 2-3 (Th-F)—Annual conference on Electrical Applications in the Textile Industry, Textile Industry Subcommittee, **AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS**, Heart of Atlanta Motel, Atlanta.

Apr. 3 (F)—Spring meeting, **SOUTH CAROLINA DIVISION, SOUTHERN TEXTILE ASSOCIATION**, Fairforest High School, Spartanburg, S. C. (Supper served at 6:30 p. m.; meeting begins 7:30 p. m.)

Apr. 11 (Sa)—Spring meeting, **NORTHERN NORTH CAROLINA-VIRGINIA DIVISION, SOUTHERN TEXTILE ASSOCIATION**, Lexington Senior High School, Lexington, N. C. (10 a. m.)

Apr. 15-16 (W-Th)—Open House, **A.C.M.I. COTTON FIBER TESTING LABORATORY**, The Clemson House, Clemson, S. C.

Apr. 22-25 (W-Sa)—Annual convention, **COTTON MANUFACTURERS ASSOCIATION OF GEORGIA**, Diplomat Hotel and Country Club, Hollywood Beach, Fla.

Apr. 25 (Sa)—Spring meeting, **EASTERN CAROLINA DIVISION, SOUTHERN TEXTILE ASSOCIATION**, North Carolina State College School of Textiles, Raleigh, N. C. (10 a. m.)

Apr. 28-29 (Tu-W)—Technical Advisory Committee meeting and Board of Trustee Meeting, **INSTITUTE OF TEXTILE TECHNOLOGY**, Charlottesville, Va.

Apr. 29-30 (W-Th)—Spring meeting, **THE FIBER SOCIETY**, Fontana Village, N. C.

May 2 (Sa)—Spring general meeting, **ALABAMA TEXTILE OPERATING EXECUTIVES** (Slashing and Weaving), Thach Auditorium, Alabama Polytechnic Institute, Auburn, Ala.

May 12-14 (Tu-Th)—**COTTON RESEARCH CLINIC** (sponsored by the National Cotton Council), The Grove Park Inn, Asheville, N. C.

May 18-23 (M-Sa)—**NATIONAL COTTON WEEK**, sponsored by the National Cotton Council of America.

June 18-20 (Th-Sa)—51st Annual Convention, **SOUTHERN TEXTILE ASSOCIATION**, The Ocean Forest Hotel, Myrtle Beach, S.C.

Sept. 10-11 (Th-F)—Fall meeting, **THE FIBER SOCIETY**, Textile Research Institute, Princeton, N. J.

Oct. 7 (W)—**CHEMICAL FINISHING CONFERENCE**, sponsored by the National Cotton Council, Mayflower Hotel, Washington, D. C.

Oct. 8-10 (Th-Sa)—Annual national convention, **A.A.T.C.C.**, Sheraton Park and Shoreham Hotels, Washington, D. C.

Oct. 10 (Sa)—Fall general meeting, **ALABAMA TEXTILE OPERATING EXECUTIVES** (Carding and Spinning), Langdon Hall, Alabama Polytechnic Institute, Auburn, Ala.

(M) Monday; (Tu) Tuesday; (W) Wednesday; (Th) Thursday; (F) Friday; (Sa) Saturday

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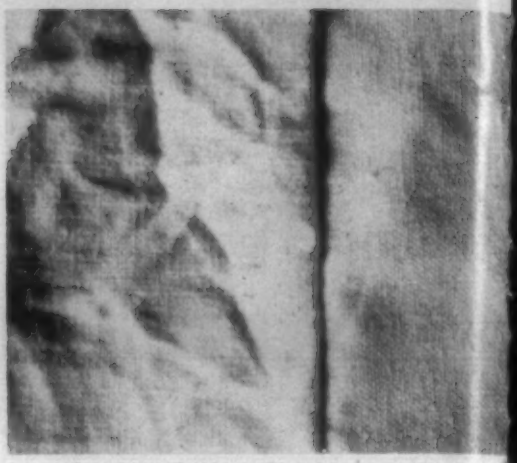

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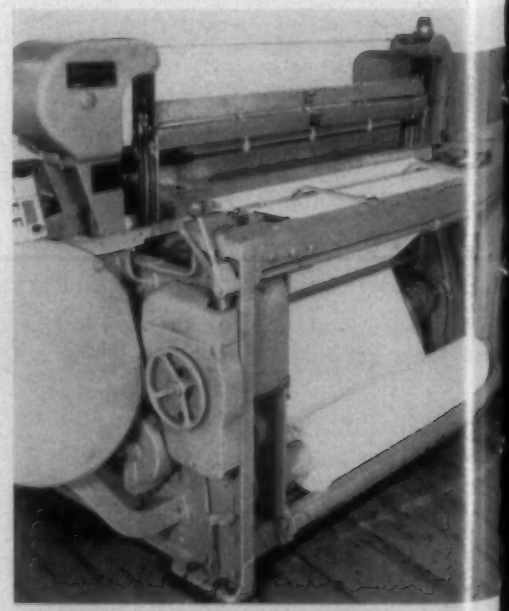

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